UNIVERSITY OF ALBERTA

ATTACHMENT AND DEPRESSIVE SYMPTOMS IN CHILDHOOD: SOCIOGENIC CONTRIBUTIONS TO DEPRESSION

BY

ERIC CHARLES SUNDBY

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A thesis submitted to the faculty of Graduate Studies and Research in partial fulfillment of the requirements for the degree of DOCTOR OF PHILOSOPHY.

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

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Dedication

This work, so long in the making, was at once supported and challenged by those I love: supported with love, encouragement, understanding, and sacrifice, challenged by the need for presence and patience and by my own, acutely felt limitations. To my loving wife, Leslie there are no adequate words, but I will always give you deep, deep thanks. And now say "Its your turn!" To Ben and Aly I say "You have always been most important to me." My heartfelt appreciation is due, as well, to extended family members, who, in various ways, provided support and encouragement during this long hiatus (special thanks to Jo and Elly). The support and belief of friends and colleagues and church community was also invaluable and sustaining. For these gifts and for the givers I am thankful and do dedicate this work.

ABSTRACT

This study was designed to investigate the relationship of attachment to social competence and affective symptoms in latency aged children. A major hypothesis explored was that attachment generated social features were important to affective health or resilience. Two groups of children aged 10 to 13 years, one composed of children referred for problem family relationships and the other of non-referred children, were assessed and compared on a number of relational variables hypothesized to relate to affective health. The Attachment History Inventory (AHI) and the Child Behavior Checklist (CBCL) were administered to parents in order to provide child relational history and behavioral status data. The CBCL Total Competence scale was employed to provide an index of resilience. This measure was regarded as providing a visible expression of the "internal working model" (Bowlby, 1958) and was found in this study to be positively related to attachment strength and predictive of affective symptoms. Participating children completed the Reynolds Child Depression Scale (RCDS) and the Inventory of Parent Peer Attachment (IPPA). Significant group differences and inter-correlations were found between most measures.

Data were also analyzed for relational characteristics indicated to be especially salient to attachment strength. When compared to the non-referred group, referred children were reported by their parents to be less independent, less appreciated, less encouraged, and less involved in mutually enjoyable activities. The referred group was also found to be less broadly and deeply attached to parents, especially to fathers. Unexpectedly, both groups reported low levels of attachment to peers. As predicted, higher relational risk scores, lower levels of attachment, poorer social competence, and more depressive symptoms were associated with referred children. The inter-relationships of the above measures were found to be significant and in a direction that supported the sociogenic model of depression proposed by the study.

Social competence was found to be predicted by attachment status and to be predictive of depressive symptoms. Findings underscored the importance of attachment outcomes to relational and affective health while suggesting that refinement of the proposed model was required.

TABLE OF CONTENTS

CHAPTER I 1

  INTRODUCTION 1

  Attachment and Depression 1

  Scope and Objectives. 1

  Significance of the Study 2

  Conceptual Assumptions 3

  Nature of the Problem 5

  Questions 8

  Thesis Outline. 9

CHAPTER II 10

  SELECTIVE REVIEW OF RELATED LITERATURE. 10

  Outline of Literature Review 10

  Definition of Terms 10

  Increased Incidence of Depression 14

  Evidence of Sociogenesis 16

  Inherent Relational Capacities 18

  Attachment Theory 23

  Functions of Attachment 26

    Attachment and Social Competence 30

    Attachment and Resilience 32

      Family Influences 35

      Extra-familial Influences 36

    Resilience and Depression 37

    Attachment and Affective Health 39

  Summary of Literature Review 40

  Delineation of Research Problem 44

  A Research Direction 45

  Statement of Hypotheses 47

CHAPTER III 49

  METHOD 49

  Participants 49

- Sample Characteristics 50
  - Sex 50
  - Age 50
  - SES 50
- Research Design 51
- Data Collection and Recording 52
  - Procedure 52
  - Non-referred Sample 55
  - Referred Sample 56
- Instruments 57
  - Attachment Risk Measure 57
    - AHI 57
  - Attachment Status Measure 59
    - IPPA 59
  - Social Competence Measure 61
    - CBCL 61
  - Affective Health Measures 62
    - RCDS 62
    - CBCL Internalization Scale 63
- Data Analysis 65
- Summary 65

CHAPTER IV 66

- **RESULTS** 66
- Research Hypotheses: Results 67
  - Viability of Model 67
  - Attachment Risk and Outcome 70
    - Risk Factor Incidence 72
  - Attachment Risk Prediction 74
  - Attachment Pattern Differences 74
  - Attachment Predicts Social Competence. . . . 79
  - Social Competence and Depression Symptoms. . 80
  - Developmental Influences Upon Attachment . . 83
- Subsidiary Findings 83

CHAPTER V 85
  DISCUSSION 85
  Interpretive Position 85
  Viability of Sociogenic Model 90
  Between Group Differences 91
  Attachment and Relational Risk 92
  Attachments to Parents and Peers 96
  Attachment and Social Competence 101
  Attachment and Affective Health 103
  Social Competence and Affective Health 104
  Developmental Influences 105
  Conclusions 109
  Implications 115
    Prevention 115
    Treatment 119
  Delimitations of the Study 121
  Suggestions for Future Research 123

REFERENCES 130

APPENDICES 143

  Appendix A
    Letter of Introduction and Consent Form
  Appendix B
    Attachment History Inventory
  Appendix C
    Inventory of Parent-Peer Attachment (Sample)

LIST OF TABLES

Table **Page**

Table 1. Total Sample Correlations and Significance Levels for the Four Major Summary Measure 68

Table 2. Correlation Matrix. Major Variables. Total Sample 70

Table 3. t-Tests. AHI Sub scales and IPPA Total Score. Referred / Non-referred . 71

Table 4. Chi-Square. AHI Risk Factors. Referred / Non-referred 73

Table 5. Regression Analysis. Predictive Power of Attachment Risk For Attachment Outcome 74

Table 6. Chi-square. Positive Attachment to Mother, Father, and Peers. Referred / Non-referred 76

Table 7. t-Tests. Attachment to Mother, Father, and Peers. Referred / Non-referred 77

Table 8. t-Tests. IPPA Sub scales. Referred / Non-referred 78

Table 9. Regression Analysis:Predictive Power of Attachment for Social Competence . . . 80

Table 10. t-Tests. Affective and Social Measures. Referred / Non-referred . . 81

Table 11. Stepwise Regression Analysis. Variables Predicting RDS Raw Score. Total Sample 82

LIST OF FIGURES

Figure **Page**

Figure 1 66

CHAPTER I

INTRODUCTION

Attachment and Depression

The topic of childhood affective disorder has received increased research attention in the past 15 years. This attention was enabled by theoretical change and was prompted by the observation that the incidence of depressive disorders was on the rise in the general population. Meanwhile, studies in ethology and attachment had advanced our understanding of the inherent, relational requirements and capacities of humans. This body of research substantiated a connection between attachment outcomes and affective health during early childhood, adolescence, and adulthood. However, until recently, little has been done to examine the mechanism whereby attachment contributes to the emergence of depressive symptoms in children. Even less work has been directed toward examining this mechanism or the relationship of these variables in latency aged children (10 to 13 years old).

Scope and Objectives

A major objective of this investigation was to explore the relationships between attachment history variables, attachment outcomes, social competence, and affective health. It was hypothesized that these variables would co-vary in a systematic and predictable manner. The responses of 10 to 13 year old clinic referred children and their parents to a variety of measures were compared to those of same-age children from the general elementary school population and their parents. Collected attachment histories and scaled data were examined for variables implicated in the cultivation of affective health. Between group comparisons were also made to test the general hypothesis that the referred group would differ significantly from the non-referred group on the employed measures. Finally, the data were examined for individual risk factors indicated to be particularly salient to healthy attachment.

Significance of the Study

The importance of supportive social experience to the cultivation of inherent social and affective potentials in infants and young children has been well-documented (Cicchetti, Toth, & Lynch, 1994; Emde, 1989; Goldberg, 1988,1992; Greenspan, 1986; Rutter, 1987; Spitz & Wolf, 1946; Sroufe, 1987; Tronick, 1982). These findings have provided the basis for further investigation of the contribution made by attachment outcomes to social and affective development. Understanding more about how these attachment outcomes influence affective health should prove useful to preventive and therapeutic efforts to cultivate emotional resilience, security, and relational health in childhood and throughout the life span (Hazan & Shaver, 1992; West, Rose, & Sheldon, 1993).

While compromised attachment has been found to be associated with lowered emotional resiliency and increased vulnerability to psychopathology, the mechanisms of influence have not been thoroughly investigated. Allen, Hauser, and Borman-Spurrell (1996) connected attachment outcomes to social and affective well-being when they stated: "...attachment organizations that lack coherence or security may create enduring vulnerabilities to psychopathology thus impairing an individual's ability to participate in satisfying social relationships and to appropriately evaluate social interactions" (p. 254). The central premise of this present study was that the inability to form satisfying social relationships was depressogenic. Vulnerability to depression and other forms of psychopathology was believed to be, at least in part, engendered and maintained by compromised relational abilities, abilities that reflect internalized beliefs about others, the self, and the self in social relationships.

Characteristics of internal working models such as expectancies, trust level, and attributions were reasoned to heavily influence social and, hence, affective experience. The quality of these cognitive features was believed to be positively associated with the quality of attachment relationship. Another supporting observation was that social problems and adjustment issues were found to be common in poorly attached children. Social competence was, therefore, implicated in the genesis of depression and was considered to be an important developmental achievement that contributed to the ability to handle the increased social demands of the adolescent years. The above observations support the hypothesis that social competence would be predictive of affective health in latency aged children.

Conceptual Assumptions

Bowlby's concept of the "internal working model" (Bowlby, 1958) provided the theoretical support for testing the relationships of these variables. Main, Kaplan, and Cassidy (1985) and Kaplan (1987) had subsequently demonstrated that early social encounters with attachment figures were internalized as expectations "which guide feelings, cognitions and actions" (Main et al., 1985, p. 10). This view was further supported by research suggesting that attachment quality was a social outcome that influenced the sequelae of psychopathology (Allen, et al. 1996; West & Keller, 1994).

The social nature of humans has been both theorized and demonstrated by ethological research (Emde, 1989; Stevenson-Hinde, 1994; Tronick, 1982) and personality theorists (e. g. Adler, 1946). Earlier clinical observations had provided information about the importance of relationships to emotional health (Bakwin, 1942; Chapin, 1915; Spitz, 1945; Spitz & Wolf, 1946). What these observers described, when reconsidered in the context of recent findings about the relational nature of humans, were organismic, anaclitic responses to the impoverished social conditions characteristic of custodial, institutional environments. These early observations provided the basis for subsequent ethological research, attachment theory, and current efforts to investigate human emotional development. This early research had supported the view that humankind was fundamentally relational in nature, a central premise of the present study. The depressive response to non-supportive attachment experiences observed in infants and young children was assumed to hold for latency aged children and throughout the life span.

This study was founded upon the idea that compromised attachments engender self-protective, truncated relational capacities (social competencies and cognitive features) that set in motion experiences with the social world that deprive children of important personal outcomes such as validation, affirmation, sense of belonging, and personal competency. Social competence was hypothesized to be a visible expression of internalized relational features that comprised the internal working model. These internal features consist of personal competencies, views of others, sense of security and trust, attributions, and expectancies, all outcomes attachment experiences. These internalized relational features are believed to influence feelings, cognitions, and social actions. When dysfunctional, these features set the stage for the development of depressive symptoms by limiting affective resiliency and adversely influencing the quality and interpretation of social experience.

Nature of the Problem

Demographic investigations and clinical observations have revealed that the incidence of depressive disorders in children has been on the rise in Europe and North America since the end of World War II (Angold, 1988; Klerman, 1988; Lavori, Klerman, Keller, & Reich, 1987). Diagnostic and developmental issues have made the establishment of exact incidence statistics for children problematic but there is general agreement that depressive symptoms and disorders are increasingly common. A further finding for the same historical era is that the capacity of various social environments, including families, schools, and communities, to nurture and provide basic emotional security to children has declined in North America (Bronfenbrenner, 1986; Fogel, Melson, & Mistry, 1986; Keniston, 1977; Wallerstein, 1989). From the ethological point of view, this observation may be due to changes in the social environment. What Bowlby (1973) termed "the environment of evolutionary adaptiveness" may have become so altered by social changes that it has become increasingly difficult for children to develop basic emotional security (Stevenson-Hinde, 1994). The co-occurance of social change and increased incidence of depression, when joined with evidence of a deeply social human nature, implicates social factors in the genesis of depressive symptoms and provides the rationale for this present research effort.

To date, the contribution of relational abilities to emotional resiliency and affective functioning has been under-investigated. Indeed, social skill deficits have typically been regarded as outcomes of depressive states rather than as risk features. Viewing the problem of depression from the point of view that it is, at least in part, the result of social or relational skill deficits engendered by early social experience has implications for both preventative and therapeutic efforts. Introducing interventions and therapies based on enhancing relational skills could potentially influence the incidence of a variety of problematic affective outcomes ranging from school failure (Hart, 1991), oppositional defiant disorder (Patterson, DeBaryshe, & Ramsey, 1989), emotional insecurity (Cummings, 1995), and increased risk for psychopathology (Rosenstein & Horowitz, 1996). Understanding the relationship between social competence and affective health gathers importance when the impact of depression upon psychological resiliency is considered (Armsden, McCauley, Greenberg, Burke, & Mitchell, 1990; Gotlib & Hammen, 1992).

The researcher's clinical experience with children referred for relational, affective, and/or behavioral problems also suggested the developmental salience of primary attachments. When examining the histories and life circumstances of these children it was noted that they, almost without exception, shared the characteristic of problematic or unstable attachments. This observation resulted in the development of a research format that employed measures of relational risk, attachment to parents and peers, social competence, and affective health to investigate hypothesized relationships. A review of the literature further confirmed the utility of investigating the inter-relationships of these variables.

In order to explore the relationships between attachment history, attachment outcomes, social competence, and affective health, the researcher was required to (a) Develop an attachment instrument designed to assess relational risk factors and outcomes, (b) gather information about children's affective health, social competence and attachment status, and (c) compare two distinct groups of children (referred and non-referred) on the above measures.

The general theoretical assertion to be tested was that compromised attachments generate affective risk through the negative, depressogenic internal working models that they engender. The internalized features of the model were hypothesized to manifest themselves in social competencies via internalized features like self-esteem and cognitive features such as expectancies and attributions.

Questions

To further explore the relationships between historical social features, attachment outcomes and relational and affective health, the study was designed to investigate the following general questions:

1. Do the employed variables inter-correlate in a manner that supports the proposed model of depression?

2. Do children with high-risk relational histories differ from low risk peers with regard to their attachment to parents and peers, social competence, and level of depressive symptoms?

3. Does attachment strength predict social competence?

4. Is social competence predictive of affective health?

5. Does positive attachment operate to promote resilience in the face of life circumstances?

6. Will there be evidence of developmental influences upon the variables under study?

7. Which attachment risk factors most differentiate the two groups?

Thesis Outline

Chapter 2 contains a selective review of the literature pertinent to the general questions raised above. Specific, and more refined research questions arise from the review and lead to the formulation of research hypotheses. In Chapter 3 the research methodology utilized to investigate the hypotheses is presented. In Chapter 4, results are discussed, and Chapter 5 discusses these results in terms of the literature and their implications for future research, treatment, and prevention efforts.

CHAPTER II

SELECTIVE REVIEW OF RELATED LITERATURE

Outline of Literature Review

In order to establish the basis for investigating the hypotheses associated with this general line of inquiry, a review of relevant literature was undertaken. This effort began with an investigation of evidence documenting the increased incidence of childhood depression. Next, literature commenting upon the inherent, relational nature of humankind was reviewed. Following this, the contribution of attachment theory to our understanding of human nature and to social development and resiliency was reviewed. Finally, the literature exploring the contribution of attachment to affective health was reviewed.

Before formally beginning the literature review, definitions of terms employed in the study are provided below.

Definition of Terms

Affective Health - a state of balanced emotional well being as indicated by psychological resiliency, healthy social relationships, and a relative lack of depressive symptoms.

Attachment - an affective, relational bond between an individual and their primary social figures (parents, primary caregivers). Optimal attachment experience is believed to provide the basis for emotional security by cultivating basic trust in others and a positive "internal working model" of self in the social world.

Attachment History - the accumulation of relational and social experiences that serve as the basis for attachment relationships and formation of individual "internal working models" (Bowlby, 1958).

Attachment Indices - specific social and personal outcomes derived from attachment history experiences. Examples are: the availability of confiding relationships with parents or peers, self-confidence level when in novel social situations, trust in others, affective health, and self-esteem level.

Attachment Quality - for the purposes of this study, attachment quality was viewed in quantitative terms, as being either positive or negative. This was the case due to the instrumentation used to assessment attachment. Positive attachment was defined as scores ≥ the mean attachment score obtained by the non-referred group on the IPPA scales. Negative attachment was defined as scores falling below the non-referred group's IPPA scale score means.

Developmental Psychopathology - an emerging discipline premised upon the notion that maladaptive behavior is cultivated by developmentally non-supportive social environments that fail to provide appropriate and timely developmental support for the cultivation of emotional well being.

Ecological Theory - A theoretical position maintaining that the human social environment is composed of a number of interrelated levels that interact with the person to influence the development of inherent human potentials.

Ethology - An approach to understanding development that is based on the idea that evolutionary history has left species with certain inherent characteristics that, in their "environments of evolutionary adaptativeness" ensured survival and optimal development (Bowlby, 1958). In humans, the rudimentary reflexive and behavioral characteristics that establish, maintain, and cultivate attachment relationships are considered to be inherent. These inherent features, when developed, increase the probability of both biological survival and emotional well being.

Inherent Nature - the in-born, "hard-wired", species characteristics of living organisms. Phylogenetically, humans may be viewed as having inherent requirements that are not learned. While social experiences influence the expression of inherent capacities, this plasticity does not invalidate the view that healthy human functioning occurs within a certain range of the continuum of possible behavior outcomes.

Internal Working Model - the internalized schema of the social self and self within the social world generated by primary attachment experiences. This model consists of features such as attributions, expectancies, beliefs, level of trust in others, sense of personal competence, and feelings of worth and belonging, all outcomes fostered by primary attachment relationships.

Macrosocial Influences - influences upon development that originate in the social environments outside of the immediate family. For example, the number and quality of child-centered resources is dependent upon reigning cultural values and economic support. Bronfenbrenner (1979) clearly articulates the importance of these influences in his Ecological Theory.

Non-referred Group - child participants (grades 4-7) gathered from a cross-sectional SES sample of schools from within the same community as their referred counterparts.

Organismic View - a view of human behavior that regards humans as inherently social or relational in nature and as requiring the support of social relationships to realize affective potentials. This view maintains that to meaningfully study human development and behavior, these inherent features must be considered.

Referred children - child participants (grades 4-7) gathered as a result of their referral to Mental Health resources for behavioral problems related to stressed family relationships. These children lived in the same community as those children composing the non-referred group.

Relational health - a term used to reflect a child's ability to derive support, validation, and security from their social environments. Relational health is associated with affective resiliency and emotional well being.

Resilience - defined as the individual's ability to effectively cope with emotional stress, thereby maintaining affective stability. Resilient children are characterized by personal features such as an active stance toward problems, positive expectancies, positive attributions, and an independence that is tempered with the ability to approach and rely upon others. Other resilient qualities include the ability to realistically persist, having the capacity to strategize on a problem, having a range of interests, being flexible enough to apply the above skills with socially sensitive discrimination, and being motivated by successes related to the above characteristics (Demos, 1986; Werner, 1984).

Social Competence - defined as the level of independence, responsibility, and social skills evident in the child. Competencies also include ability to participate, personal responsibility, flexibility, positive future orientation, positive expectancies, and the ability to seek appropriate assistance from others.

Validation - the experience of being valued, appreciated, and as belonging. Validation serves to affirm the person and to consolidate the sense of emotional security. Validated children feel valued, liked, and that they belong.

Increased Incidence of Depression

Theoretical limitations had long served to obstruct the idea that children could be depressed (e. g. Rie, 1966). Recent findings emerging from cognitive and attachment research have, however, enabled a reconsideration of this question and it is now widely acknowledged that children may indeed be depressed (Angold, 1988; Kazdin, 1990; Reynolds, 1990). Klerman (1988) reported estimates that four percent of children and between ten to fifteen percent of the adolescent population were depressed at any one time. Moreover, both Klerman (1988), and Lavori et al. (1987), after examination of epidemiological data, concluded that the lifetime risk of depression and a declining age of onset for depressive disorders have occurred since the end of World War II. Importantly, Kashani, Rosenberg, and Reid (1989) concluded that changing social features provided the explanation for the increased incidence of this disorder. These authors maintained that the observed increase in depression was not solely accounted for by genetic or endogenous factors. Although endogenous depressions do occur, the vast majority of human depression seems to emerge in response to traumas involving social loss or is associated with chronic, stressful social conditions that do not foster resilient individuals.

One plausible explanation of this observed increased incidence of depression is that it is, at least in part, a species response to emerging, non-supportive social conditions. Impoverished social environments are those that, to varying degrees, lack qualities found in the "environment of evolutionary adaptiveness" (Bowlby, 1958). Such environments do not foster or support the development of positive attachments and associated capacities that contribute to relational competence and resilience. Supporting this view, Stevenson-Hinde (1994) warns that: "There is a danger that our present society, with its emphasis on material goods, neglects care-giving in the attachment theory sense, with corresponding outcome of a decline in secure attachments, in adulthood as well as infancy" (p. 63).

Human beings may, then, be contending with counter-developmental social environments that are diminished in their capacity to cultivate emotional security and otherwise nurture affective potentials. This view implies that the healthy expression of human social capacities and affective potentials requires the support of complementary social experience. Other research has supported the view that social conditions and practices influence affective health and human social potentials (Demos, 1989; Fogel, et al. 1986; Keniston, 1979; Wallerstein, 1987; Werner, 1984).

Evidence of Sociogenesis

Although earlier views of childhood depression had isolated aspects of the condition (e. g. biochemical, behavioral), ethological and attachment research findings have suggested that the development of depressive symptoms is highly related to social factors. While depressogenic conditions confront many individuals, not all succumb to depression. Resilience in the face of stressful conditions has been found to be highly associated with the personal and social abilities associated with successful attachment. While it has been widely observed that depression follows stressful life events, traditional treatment efforts have been aimed at symptom control. Cognitive behavioral efforts have contributed to treatment efforts by providing systematic approaches that address attributions and expectancies, both outcomes of relational experience. However, depression is still widely regarded as a personal response to individual circumstances. This research effort is premised on the assumption that humans have phylogenetically based social needs that are primarily met by forming positive attachment relationships that cultivate relational potentials (Bowlby, 1958; Allen et al.1996).

Robust evidence supports the view that the increased incidence of childhood depression has been, in large measure, engendered by counter-developmental social factors (Emde, 1989; Fogel, et al. 1986; Hammen, 1992; Sarason, 1981; Stevenson-Hinde, 1994; Tronick, 1982; Wallerstein, 1987). The graphic observations made by Spitz (1945) and Spitz and Wolf (1946) of institutionalized, mother-deprived infants and children underscored the importance of social support to emotional well being. Subsequent research has supported the view that humans develop depressive responses to social environments devoid of nurturing relational supports. These responses are viewed as evidence of inherent, species characteristics that reveal a strong social aspect of human nature (Emde, 1989; Greenspan, 1989; Stevenson-Hinde, 1994; Tronick, 1982). Taken together these findings suggest that both immediate and wider social environments may influence the inherent relational and affective potentials of children.

Bronfenbrenner (1979, 1986) and others espousing ecological theories, as well as those with an ethological view of human development, acknowledge a bi-directional, person-environment relationship (Ainsworth, 1989; Bowlby, 1969; Emde, 1989; Greenspan, 1989; Spitz and Wolf, 1946; Tronick, 1982). The ethological view is that healthy human affective development is dependent upon social interactions that constructively foster and support the emergence of inherent potentials for relationship. Following from this, the relationships offered by primary attachment figures would be formative and would operate to influence expectations of subsequent social experience (Bowlby, 1958, 1973; Ainsworth, Blehar, Waters, & Wall, 1978; Sroufe, 1987). Belsky and Cassidy (1994) have identified what they term "relationship generated expectations" (p. 28) that operate to shape long-term behavioral and psychological development.

Recent work has established that attachment relationships may develop with other significant adults, outside of the mother-infant dyad (Lewis, 1994). Children have demonstrated that they are capable of attaching to adults outside of their immediate family (Ainsworth, 1989; Lewis, 1994; Lewis & Feiring, 1991; Rosenstein & Horowitz, 1996). Although initial attachment outcomes may be resistant to change due to their primacy, clinical observations have confirmed that qualitatively different social experience can challenge existing models of relationships (Lewis, 1994; West & Keller, 1994).

These findings underscore the importance of social experience and provide a basis from which to guide efforts to treat and prevent relational and affective disorders. Establishing the importance of the attachment relationship to inherent affective potentials is of central importance to this study. This review will now present evidence of the inherent, relational nature of humankind.

Inherent Relational Capacities

Since the middle of the 20th century, views about the sophistication of the human infant have undergone rapid theoretical change. An early observer, Chapin (1915) noted:

> In considering the best conditions for the relief of acutely sick infants and for foundlings or abandoned babies, two important factors must always be kept in mind: 1) the unusual susceptibility of the infant to its immediate environment, and 2) its great need of individual care. (p. 1)

Although Chapin hinted that the high mortality rates that he observed in the institutions of his day were influenced by social factors, the immediate environment he referred to was that of the physical world of germs and infections.

Bakwin (1942) noted that failing to recognize the importance of social contact led to hospital practices that served to further deprive children of social support. Bakwin (1942) stated:

> The large open ward of the past has been replaced by small, cubicled rooms in which masked, hooded, and scrubbed nurses and physicians move about cautiously so as not to stir up bacteria. Visiting parents are strictly excluded, and the infants receive a minimum of handling by the staff. (p. 31)

This example provides a classic illustration of how the strict application of theory may force developmental evidence onto a rigid "Procrustean Bed" and result in misinterpretation. In this case, a strictly medical, disease-based theory was employed to interpret symptoms. This resulted in children being deprived of what attachment research was to later identify as essential social supports that fostered resiliency and promoted recovery.

The work of Rene Spitz must also be cited in the chronology of research relevant to the foundation of the organismic view of human psychosocial development. His research in this area (Spitz, 1945; Spitz & Wolf, 1946) was instrumental in establishing the link between social deprivation and what he described as "anaclitic depression". This depression, Spitz maintained, was due to the response of children to the sterile social conditions surrounding them in the institutions of the day. Spitz

(1945), explained the affective and biological outcomes that he observed in the following way: "We believe that they suffer because their perceptual world is empty of human partners, that their isolation cuts them off from any stimulation from any persons who could signify mother representativeness for the child of this age" (p. 68). This statement underscores the developmental importance of early supportive social environments to the cultivation of inherent relational capacities. Spitz (1945) described the behaviors of the depressed infant as lethargy, inconsolability, failure to gain weight, lowered resistance to disease, lack of interest in surroundings, and a high incidence of premature death.

Building on the work of Spitz, object relations theorists (e. g. Sullivan, 1953), and Bowlby (1958; 1973) emphasized the importance of the mother-infant bond to affective health. Bowlby (1973) stated:

> The model of the attachment figure and the model of the self are likely to develop so as to be complementary and mutually confirming. Thus an unwanted child is likely not only to feel unwanted by his parents but to believe that he is essentially unwantable. (p. 204)

Bowlby's notion of the internal working model is evident in this statement. He believed that primary attachment experiences provided children with their first impressions of the social world and of who they were within that world. These early impressions consistently influenced, Bowlby maintained, both social behavior and the interpretation of subsequent social experience. The experiences generated by the relational qualities of the working model were also believed to confirm and maintain its biases and to influence affective experience. Work employing projective assessment instruments has demonstrated both the existence and continuity of the working model over time (Kaplan, 1987).

Blatz (1966) identified what he called a state of "relatedness", a sense of security that derived from being in what he termed "benign proximity" to parents. His security theory was to highly influence his student Mary Ainsworth, who later became one of the chief architects of attachment theory. Ainsworth and Wittig (1969) further contributed to our understanding of the inherently social nature of children by observing the correspondence between infant attachment behaviors and the behavior of mothers. Their work produced the "strange situation" method of evaluating the quality of infant-caregiver attachment relationships (Ainsworth & Wittig, 1969).

Attachment theory views social experience as originating from the interaction of the social self with others. Initially children are viewed as being dependent upon the security and relational supports provided by primary attachment figures. Later, internalized relational models or "schemas" are formed by these early, primary social experiences. The child then employs the social competencies and interpretive biases associated with these schemas in subsequent social encounters. The qualities of these models are theorized to influence the interpretation and, hence, the affective outcomes of social experience (Bowlby, 1973; Main, et al., 1985; Sroufe, 1990).

Models of relating assessed in earlier, primary relationships have been found to be consistent with later social functioning and relationships (Kaplan, 1987; Sroufe, 1983).

The foundation provided by early researchers in this field (Ainsworth, et al. 1978; Bakwin, 1942; Bowlby, 1958, 1973; Chapin, 1915; Spitz. 1945) enabled a new generation of researchers to further investigate the influence of social factors upon infant affective development. Recent findings have revealed that, from birth, children are equipped to engage their immediate social environments with a variety of reflexive, sensory, and behavioral modalities (Emde, 1989; Greenspan, 1989; Tronick, 1982). Furthermore, the development and integration of social capacities have been found to be dependent upon factors such as parental responsiveness, rejection, interference, temperament, affective health, and psychological and physical availability (Emde, 1989; Greenspan, 1989, 1992; Main, et al. 1985). Greenspan has ably summarized this enhanced conception of the human infant:

> It is well documented that the infant's spontaneous behavior is richly organized from birth and that this organization becomes progressively more complex during the first few years of life. The accumulated evidence supporting this view has led to a radical change in the scientific conception of the infant from a conglomerate of isolated reflexes to an organism born with considerable pre-adaptation to the social encounters that are an essential feature of the post-natal environment. (1989, p. 503)

The human infant, then, is inherently equipped and predisposed to engage others. Meanwhile, accumulated evidence has substantiated the importance of early social experience to the cultivation of inherent relational capacities (Cicchetti & Greenberg, 1991; Cicchetti, Toth, & Lynch, 1994; Kobak, Sudler, & Gamble, 1992). Social potentials are either cultivated or truncated, it seems, by primary social experiences (Emde, 1989; Greenspan, 1989, 1992; Sroufe, 1987; Tronick, 1982).

Failure to understand the inherent social capacities of humans and their relationship to emotional development has, in the past, resulted in mishandling and developmental misfortune for infants placed in institutional settings (Bakwin, 1942; Chapin, 1915; Emde, 1989; Spitz, 1945). When reinterpreted from the ethological perspective, symptoms such as a failure to gain weight, irritability and inconsolability, social withdrawal, lowered resistance to disease, and high infant mortality may be viewed as organismic responses to sterile, counter-developmental social conditions (Emde, 1989; Spitz, 1945). As an inherent characteristic, this social nature and its associated needs are evident throughout the life span (Ainsworth, 1989; Hazan & Shaver, 1994).

Evidence of the social/relational nature of humans, a growing understanding of macro-social influences upon behavior and resilience, and the perspective provided by the developmental pathways perspective, have converged to implicate social factors in the origins of human psychological dysfunction. Attachment theory and research have provided a rich framework from which to investigate the effects of social factors upon emotional and developmental outcomes and from which to evaluate social environments with regard to their capacity to cultivate relational potentials.

Attachment Theory

Attachment theory is one of the most viable and heuristic developmental theories available. This theory was originally developed by John Bowlby (1958) and was derived by synthesizing elements of ethological, control systems, and object relations theories. Bowlby (1958) postulated that attachment was a behavioral system that, along with other systems, had evolved because it contributed to species survival. The goal of the attachment system was seen by Bowlby as being to increase the proximity of caregivers. From an ethological perspective, proximity enhanced the probability of infant survival. The attachment system was viewed as a stable construct that served to organize infant behavior around the goal of achieving caregiver proximity and attention. Secure attachment has been shown to influence the likelihood of physical survival and to have an important role in social and emotional development.

Research has revealed that the attachment behavioral system does not emerge in a recognizable form until sometime after the first half year of life (Ainsworth et al., 1971; Spitz & Wolf, 1946). This is due to nervous system maturation - the increased myelization of nerve tissue that occurs at this time. This development enables early, rudimentary reflexive capacities such as grasping, crying, following with gaze, and smiling to become more organized. When directed toward central, care giving adults, a bi-directional relationship is established, the qualities of which characterize the attachment relationship. It is believed that the quality of this relationship exerts a major influence on subsequent emotional health by providing the basis for subsequent social expectations and sense of self in relationships. The attachment relationship, then, contributes to affective health by influencing beliefs about the self and others, by influencing attributions and expectancies, and by how well it provides security and affirmation.

In times of distress, infants, via attachment behaviors, attempt to evoke complementary, supportive, adult attachment behaviors that reduce distress and restore a sense of security and well being. Secure infants have been noted to explore their environments with greater attention and confidence (Ainsworth & Wittig, 1969; Main et al., 1985). Ainsworth and Wittig (1969) empirically demonstrated the social and personal benefits of secure attachment in an early study. This study introduced the "strange situation" method of observing attachment interactions. The behavior of one-year-old infants and their mothers demonstrated the relationship of attachment to exploratory behaviors within three contrived situations: (a) brief separations, (b) reunions with mothers, and (c) established proximity to mothers. Increased exploratory behavior was shown by securely attached children who, following separation, easily re-established proximity to their mothers.

Differences in response to the strange situation were consistently observed in subsequent research (e. g. Ainsworth, Bell, & Stayton, 1971). Distinct behavioral variations in children were found to correspond to observable variations in the quality of mother-child interactions. Individual differences in response to the strange situation were also found to be predictive of future, related behavioral differences (Arend, Gove, & Sroufe, 1979). This stability of behavior was noted by Bowlby (1958, 1973), and earlier by object relations theorists (e. g. Sullivan, 1953), and has been confirmed by clinical observations (e. g. Whisman & McGarvey, 1995).

Subsequent research findings have confirmed the developmental importance of attachment relationships (e.g. Elicker, Englund, & Sroufe, 1992; Sroufe, 1996; Grossman & Grossman, 1991; West, Rose, & Sheldon, 1993). It is now widely accepted that the attachment experiences of infancy and early childhood become internalized as models for social behavior. These internal working models include features such as expectations and interpretative biases that evoke, shape, and interpret social experience. Also, associated personality features such as self-esteem, sense of competence, and ability to trust others operate to influence social and affective experience. Secure attachment has also been found to contribute to the regulation of emotions, further evidence of its salience to affective well being (Roberts, Gottlieb, & Kassel, 1996; Sroufe, 1996).

Functions of Attachment

Attachment behavior, as viewed by ethological theorists like Bowlby (1958; 1969), has the initial, phylogenetic purpose of ensuring survival by maintaining caregiver proximity. Caregiver proximity has survival value in that it increases the likelihood of protection and sustenance. As the infant develops, the value of successful attachment extends beyond physical survival and contributes to ontogeny by cultivating emotional security, relational and cognitive capacities, and affective experiences that correspond to these features (Ainsworth, 1989; Sroufe, 1996; Tronick, 1982).

The establishment of what Bowlby (1958) termed a "secure" base is the outcome of attachment relationships that engender feelings of security and confidence within the child. These characteristics, in turn, enable the child to look beyond immediate emotional needs to explore their surroundings, an achievement that may foster the development of internal features like self-confidence, security, sense of competence, and trust of others. Affective outcomes are viewed as phylogenetic potentials dependent upon social experiences for their varied expressions. These potentials provide the basis for subsequent social relationships. Compromised attachment has been found to be associated with a variety of pathologic conditions including oppositional defiant disorder and conduct disorder (Spelz, DeKlyen, Greenberg, & Dryden, 1995), and a range of depressive disorders (Cummings & Cicchetti, 1990). Primary attachment relationships are seen to be formative social bonds that influence the quality of subsequent social, hence, affective experience.

Rosenstein and Horowitz (1996) concluded that "the quality of attachment plays a large part in determining the individual's degree of vulnerability to developmental deviations" (p. 244). By influencing developmental vulnerability, attachment quality operates to influence affective and social development. This suggests that secure attachment fosters resilient cognitive and emotional features that mitigate psychological or emotional stress. Adaptive outcomes are believed to stem functional competencies that stem from supportive primary attachment relationships.

Ethological evidence and attachment research findings support the view that humans are phylogenetically predisposed to seek affective, relational support (Bowlby, 1958, 1969; Greenspan, 1989; Sroufe, 1987; Stevenson-Hinde, 1994; Tronick, 1982). Del Carmen and Huffman (1996) summarized the importance of attachment to human development in the following way: "Furthermore, attachment theory, with its relatively robust and clinically relevant findings, provides a broad, multidisciplinary basis for the understanding of socioemotional dysfunction" (p. 291). Related research efforts continue to accumulate evidence of the developmental importance of successful attachment. For example, poor attachment support has been clearly linked to compromised developmental outcomes and subsequent psychopathology (Cicchetti et al., 1994;Del Carmen & Huffman, 1996; Rosenstein & Horowitz, 1996; Rutter, 1987). Compromised relational abilities may act to weaken the ability to derive security, affirmation, sense of belonging, and nurture from social interactions. Relational competence and affective resiliency have also been found to be related to social histories that cultivate secure attachment (Roberts, Gotlib, & Kassel, 1996; Rudolph, Hammen, & Burge, 1995).

The relational benefits associated with successful attachment parallel Maslow's Hierarchy of Needs notion (Maslow, 1970). Maslow postulated a developmental progression from basic biological to higher order needs, stating that successful movement up the hierarchy required the meeting of more fundamental needs. Maslow did not dichotomize human needs into base and higher needs. He viewed both the cognitive and instinctual aspects of humans to "be included in the repertory of basic and given human nature" (Maslow, 1970, p.150). There appears to be an intimate connection between basic instinctual needs and cognitive capacities. This view is important when considering what appears to be the inherently social nature of humans and the manner in which this nature is interwoven with affective capacities. The meeting of inherent social needs has implications for affective development and functioning.

The need for relationship, according to the ethological/attachment theory, is inherent in humans. According to Maslow's theory, not meeting basic relational needs would have consequences for cognitive and emotional development further on up the hierarchy of needs. Sroufe (1987) summarized the importance of relationships to emotional development in the following statement: "The inner organization of attitudes, expectations, feelings, and meanings is a product of relationship history with ongoing implications for the organization of socio-emotional behavior" (p. 92).

Indeed, relational health and affective, emotional development have been found to be intimately connected (Cummings & Cicchetti, 1990; Greenspan, 1989; Grossman & Grossman, 1991; Sroufe, 1996). Perhaps the most convincing evidence of this relationship has come from ethological/attachment research, the results of which suggest that depressive symptoms in childhood originate from a failure to provide what Cummings and Cicchetti (1990) identified as "stage salient" developmental support. The above-mentioned societal dysfunction with regard to preparing children for successful social relationships may be cited as the basis of this failure. Relationship history, it seems, strongly influences the personal qualities that organize social and affective experience. These findings and conclusions underscore the importance of early social experience for subsequent social and affective health.

Support has also been gathered for the idea that attachment organization maintains mental continuity within individuals across the life span (Ainsworth, 1989; Elicker, et al. 1992; Grossman & Grossman, 1991; Kaplan, 1987). This stability may be explained, at least in part, by the evocative and interpretative influence of the internal working model. This model embodies the essence of the person's relational stance toward the social world. As such, non-confirming relational information is likely met with initial resistance and must persist in order to be adopted into the model. Another stabilizing influence may be the tendency of children's social environments to be homogenous. This influence is fashioned by primary attachments to parents, who are largely in control of the collateral environments of infancy and childhood.

A valuable modification to attachment theory has come from researchers who have broadened it from a phenomenon limited to the infant-mother dyad to include relationship functioning throughout the life span (Ainsworth, 1989; Cicchetti et al., 1994; Lewis, 1994; Lewis & Feiring, 1991; Shaver & Hazan, 1994). This advance has enabled the investigation of a broader matrix of conditions salient to the cultivation of relational potentials, including a hierarchy of attachment figures and the relational qualities of wider social environments (Ainsworth, 1989; Bronfenbrenner, 1986; Lewis, 1994; Lewis & Feiring, 1991).

Attachment and Social Competence

Given the theoretical influence upon social and affective experience, a clear correspondence between attachment quality and subsequent relationships should be evident. Indeed, such evidence has been obtained (Arend, Gove, & Sroufe, 1979; Pastor, 1981; Sroufe, 1988; Waters, Wippman, & Sroufe, 1979). Pastor (1981) found that 18 month olds who were rated as securely attached were also rated as having higher "sociability" and to be more playful than their anxiously attached peers. The secure toddlers were noted to be generally more positively oriented toward others and to have mothers who were more appropriately responsive and supportive than the mothers of anxiously attached peers. Employing the Q-sort method, Waters et al. (1979) assessed 3 ½ year old preschoolers and found that children in this group who had earlier (at 15 months of age) been classified as secure received significantly higher peer competence scores than anxiously attached peers.. Arend, et al. (1979) found that securely attached 5½ year olds were more ego resilient than their insecurely attached peers. IN this study, resilience was defined as "the ability to respond flexibly, persistently, and resourcefully, especially in problem situations." (p. 48)

Significant associations have also been found between secure attachment, peer competence, and ego resilience (Elicker, Englund, & Sroufe, 1992; Rutter, 1987). Children meeting the criteria for ego resiliency were found to be more securely attached than were non-resilient children. Sroufe (1983) also found secure attachment to be associated with emotional health, positive self-esteem, social competence, positive affect, self-efficacy, and constructive independence. These aspects of resilience have been found to have a direct bearing upon affective well being (Allen et al., 1996; Sroufe, 1996).

Attachment organization has been shown to exert a powerful influence upon the processing and organization of social experience (Grossman & Grossman, 1991). Earlier work by Main, et al. (1985) had concluded that primary attachment experiences influenced behavior, attributions, feelings, and the cognitive functions of attention and memory. According to this view, social experience was initiated, confirmed, and maintained by the personal features and cognitive biases that reflected features of individual internal working models. Main et al. (1985) developed a classification system that differentiated mental representations of attachment organization, providing further support for the existence and operation of internalized working models. This classification system was also employed to demonstrate the longitudinal stability of these mental representations. A logical deduction extending from these findings is that features of faulty internal working models have the potential to maintain depressogenic mental sets.

Such evidence supports the idea that stable "patterns of relating" originating from attachment outcomes operate to consistently influence the quality, interpretation and, hence, the affective outcomes of social experience. What has been missing, however, is a behavioral indicator of this internalized relational model. This study proposes that internalized expectations would naturally manifest themselves in the form of social competence and/or emotional resilience. Therefore, for the purposes of this study, social competence was regarded as a visible manifestation of an aspect of the internal working model - the ability to deal effectively with the social world.

Attachment and Resilience

Psychological resilience has also been linked to successful attachment. Brabey, Whiteside, Mundform, et al.

(1994) found that stimulation, emotional support, structure, and safety were qualities that promoted resilience. Care-giving that provided these supports was been found to be characteristic of relationships that promoted secure attachments (Sroufe & Fleeson, 1988).

Werner (1984), in a review of the resilience literature, identified four central characteristics of resilient children. Resilient children were found to take "an active evocative approach" toward problems, to view experiences constructively, to know how to gain the positive, supportive attention of others, and to have a faith that enabled them to view life as meaningful in spite of adversity. Other research found resilient children to be autonomous yet socially oriented, self-reliant, exploratory and inquisitive, bold in asking for assistance when it was required, and to be caring of others (Demos, 1989; Werner, 1984). These features of resilience were summarized by Demos (1989):

> Resiliency in its most developed manifestation, which would include an active stance, persistence, and the application of a variety of skills and strategies over a wide range of situations and problems, also seems to involve a flexibility...to discriminate between situations and people and to select only the most appropriate responses from among one's repertoire for each occasion. (p. 5)

Flexibility, active stance, and relational success have been found to be features that consistently differentiate resilient children from their less resourceful peers (Demos, 1989; Rutter, 1987; Werner, 1984). These characteristics of resilience correspond directly to capacities noted in persons assessed to be securely attached (Elicker et al., 1992; Roberts et al., 1996). Outcomes of successful attachment are: exploratory behavior, interest in the environment, internal locus of control, healthy social skills and relationships, and a confidence in being able to overcome challenges by oneself or with the aid of trusted others (Rutter, 1987; Sroufe, 1983; Toth & Cicchetti, 1996). Positive attachment seems to be highly associated with features that promote affective resilience.

Life event research provided strong evidence that stress plays an important role in affective adjustment (Munroe & Peterman, 1988; Rutter, 1987). Lazarus, DeLongis, Folkman, and Gruen (1985) view stress as originating in the person's appraisal of personal resources available to them to solve or cope with environmental demands. Stress level is also influenced, it is maintained, by the templates for the initiation and interpretation of social experience provided by internal working models. The messages derived from mental representations of the relational self influence the formation of important personal features such as basic trust, sense of security, future orientation, and sense of self as able, wanted, and worthy (Grossman & Grossman, 1991; Main et al., 1985).

Risk factors that affect human resiliency have been theorized by Seifer and Sameroff (1987) to reside at different levels of social organization ranging from the individual to the family, and on to various levels of the wider society. This view is consistent with Bronfenbrenner's notion of the ecology of human development (Bronfenbrenner, 1979) wherein various social environments are seen to contribute to developmental outcomes.

Attachment outcomes that contribute to resilience (i. e. sense of personal security, positive attribution style, sense of belonging, and feelings of personal efficacy) are seen to moderate the stress of life events enabling resilient, adaptive responses to these events (Demos, 1989; Rutter, 1987; Werner, 1984).

It seems, then, that affective resilience develops when attachment relationships have cultivated security, confidence, and relational health. Children with positive self-esteem, sense of competence, trust of others, and a sense of basic security cope with stress by adapting, and actively and flexibly solving the problems confronting them (Werner, 1984). Conversely, social deficits such as low self-esteem, feelings of low personal worth and competency, lack of trust in others, and poor sense of personal security are associated with a lack of emotional resilience and a low resistance to stress and affective vulnerability (Rutter, 1987).

Familial influences. Family influences upon resiliency stem from the relational foundation provided by successful attachment outcomes. Resilient children have been found to come from families that provide them with the opportunity to form close, trusting bonds with at least one caregiver. These families also provide positive adult role models and a household structure that gives them chores and a chance to contribute. The experience of togetherness, a sense that life has meaning, and an internal locus of control have all been identified as important to the cultivation of resilience (Antonovsky, 1979; Rutter, 1985). Relationally healthy families also equip children with the opportunity and ability to form trusting relationships with other caring adults, a feature that broadens their support network, thereby contributing to resilience and social competence (Antonovsky, 1979).

Extra-familial influences. Extra-familial factors associated with resilient children were also attachment related. These factors included being social and liked by peers, enjoyment of school, relationships with trusted adults, and demonstrated trust and responsibility from others (Garmezy, 1983). Schools that provided emotional security, positive role models, encouragement, a refuge from stressful home circumstances (Wallerstein, 1989), and the chance to discover personal strengths also promoted resilience. Resilient children were found to participate in extra-curricular and cooperative activities more frequently than non-resilient children.

Even a cursory look at the relevant literature reveals the importance of social relationships to the development of emotional resilience. Factors differentiating resilient from non-resilient children were found to relate to a history of supportive social experiences that contribute to secure attachment. Social competence - the ability to successfully relate to others - was implicated as a viable outcome measure or index of attachment quality. Relational ability, it seems, is based upon personal qualities such as self-esteem, self-confidence, competence, sense of basic security, hope, and trust of others - all attachment outcomes that contribute directly to emotional resilience. These findings provided evidence that attachment outcomes are important to emotional health and that resilience can be fostered in environments beyond the immediate family.

Resilience and Depression

A variety of explanations have been advanced regarding the etiology and treatment of childhood depression. These include the psychoanalytic (Carlson & Cantwell, 1980), biological (Ambrosini, 1987), cognitive-behavioral (Clarizio, 1985), genetic (Plomin, 1990), and cognitive (Braswell & Kendall, 1987) views. These conceptions, however, have largely failed to consider attachment related influences, and have tended to concentrate upon the treatment of isolated symptoms. The observation that social skill deficits remained following the removal of other depressive symptoms (Puig-Antich, et al. 1985) suggested that an important feature of depression had been overlooked. In contrast, when considered from the attachment perspective, social deficits are viewed as symptoms of faulty internal working models. This perspective implies that the relational capabilities of children contribute to the affective health of children. If this notion has validity, treating depression without addressing relational concerns would leave depression generating relational deficits in place. Failure to regard social deficits as influential in the etiology of depression revealed an oversight that may have obstructed the development of a more complete understanding of the genesis and treatment of childhood depression.

Depressive symptoms in children, although overlapping adult criteria for depression (DSM-IV), involve unique, developmental features that reflect cognitive limitations and a formative vulnerability to immediate social environments that are not characteristic of adults (Cummings & Cicchetti, 1990; Greenspan, 1989; Poznanski, 1982; Sroufe, 1987; Stevenson-Hinde, 1994). As mentioned above, attachment research has substantiated that primary attachments positively influence affective health (Ainsworth, 1989; Rutter, 1985; Sroufe, 1987) and emotional resilience (Rutter, 1987; Toth & Cicchetti, 1996). Emotional resilience buffers social stress associated with the onset of depressive states (Goodyer, 1990; Rutter, 1987; Sroufe, 1983). This prophylactic stems from personal and cognitive features engendered by supportive attachment relationships.

Recent testing of Bowlby's concept of the internal working model by attachment and social cognitive researchers has shed light upon the cognitive and symbolic outcomes of supportive attachment relationships (e. g. Baldwin, 1992; Main et al., 1985). These approaches share the view that emotional resilience originates from schemas or models composed of positive expectancies, attributions, and interpretive biases. Relational schemas (Baldwin, 1992) have been shown to be composed of specific and general information about self, others, and social relationships, and to bias the processing of social experience in a manner consistent with the features of individual schemas. These schematic features (cognitions, beliefs, and an organizing interpretive bias) are believed to influence socioemotional functioning via their effect upon resilience and the quality and interpretation of social experience. Resilience and social competence, as attachment outcomes, have been found to exert major influences upon socioemotional health (Collins, 1996; Del Carmen & Huffman, 1996). It is this documented influence upon the development of internalized relational features that provides the basis for further investigating how attachment outcomes contribute to the etiology of depression.

Attachment and Affective Health

Attachment theory has provided a rich theoretical base from which to examine the origins of individual differences in the affective-cognitive biases that influence emotional well being. This theory posits that supportive primary attachment relationships cultivate basic security and other conative features that contribute to subsequent relational competence. This relational competence is believed to derive from the establishment of healthy representations of self and self in social relationships (Baldwin, 1992; Bowlby, 1980; Kobak & Sceery, 1988; Main, et al. 1985). These internalized attributes are viewed to be "relationship generated", that is, to originate from social experience (Belsky & Cassidy, 1994). Attachment generated expectancies have been shown to influence both psychological and behavioral outcomes (Baldwin, 1992; Collins, 1996).

The social competencies that stem from healthy working models provide, it is believed, the basis for acquiring affirmation and validation from social experiences. The observation that depressed children often lack social skills (Puig-Antich, et al. 1985) suggested that impoverished social skills contributed to depression. The support and sense of relationship fostered by positive relational experiences are believed to provide the basis for emotional security, trust, self-confidence and other relational features that contribute to social competence and emotional resiliency (Bowlby, 1988; Rudolph, Hammen, & Burge, 1995; Rutter, 1987). Resiliency and social competence studies have found that positive attachments promote affective health by generating personal and relational features that act to buffer stressors and promote adaptive responses to environmental events (Hammen, 1992; Rudolph, et al. 1995). Resilient children have also been found to be proactive and competent in dealing with the social world (Cummings & Cicchetti, 1990; Demos, 1989; Werner, 1984). The foundations for psychosocial health, then, are clearly related to the developmental benefits of positive attachment relationships (Bowlby, 1988; Grossman & Grossman, 1991; Hazan & Shaver, 1994; Sroufe, 1987, 1996).

Summary of Literature Review

Many questions remain unanswered about the developmental outcomes of inadequate early attachment experiences. Although connections between poor attachment and a variety of psycopathological outcomes have been established (e. g. Cicchetti et al., 1994), much remains to be understood about the mechanisms and developmental sequelae of compromised attachment. As with other developmental phenomena, attachment outcomes are the result of the interactions of environmental, biological, genetic, and circumstantial features that make it difficult to ferret out and interpret research results. However, attachment theory offers much promise with regards to investigating the origins of a variety of relationally based psychological disturbances.

Early research efforts had observed that infants and children declined physically and emotionally when placed in impoverished social conditions (Bakwin, 1942; Chapin, 1915; Spitz, 1945). These responses were interpreted initially as the outcome of being crowded together with many other sick children. Eventually children were isolated in an attempt to keep them from contracting illness while hospitalized (Bakwin, 1942). This social isolation was noted to result in features of what Spitz, (1945) was to term "anaclitic depression", an iatragenic response to the social isolation imposed by the institutions of his day.

With the advent of ethological attachment theory (Ainsworth, 1969; Bowlby, 1958, 1969) a rich, heuristic, and practical system was available to investigate a variety of questions related to social and emotional development. This theory was built upon the ethological principle that humans (and other organisms) have inherent needs and capacities that are fundamental to the organism and that contributed directly to species survival. In the case of human beings, the feature incorporated by this theory is that of an inherent, relational nature. It is this aspect of the human makeup that provides the substrate for attachment behaviors.

The healthy cultivation of this inherent social nature has been found to be very dependent upon the relational capacities available in primary caregivers. This observation has provided the foundation for developmental research in the area of relational adaptation and mental health. Early research efforts were focused upon the mother-infant dyad (e. g. Ainsworth & Wittig, 1969). It was observed that the behavior of children at the departure of and reunion with their mothers varied as a function of the quality of attachment to mother. This stellar observation has resulted in vigorous and productive research that has revealed much about the contribution of the attachment relationship to human health and psychopathology.

A relationship between attachment quality and subsequent psychological health has been clearly established (Kobak & Sceery, 1988; Rosenstein & Horowitz, 1996; Sroufe, 1996). Review of the literature revealed that poorly attached children demonstrated a greater incidence of social and behavioral problems than did securely attached children (Cicchetti & Greenberg, 1991; Crittenden, et al., 1991; Patterson et al., 1989; Rutter, 1985; Seifer & Sameroff, 1987). The contributions of positive attachment to emotional well being are thought to be relational health, emotional resilience, and a consequent lack of depressive symptoms. In the literature, impoverished attachment relationships were found to be associated with emotional vulnerability (e. g. Hartrup, 1989; Sroufe, 1987). Poor resilience was found to be at the root of this vulnerability (Demos, 1989; Garmezy, 1983; Kobak & Sceery, 1988; Rutter, 1987; Toth & Cicchetti, 1996).

Research findings also suggested that the quality of attachment relationships and general relational abilities tended to remain consistent with the quality of earlier primary infant and childhood attachments (Baldwin, 1992; Hazan & Shaver, 1992; Kaplan, 1987; Main et al., 1985). This longitudinal stability of relational abilities was reasoned to be due to the influence of stable, self-defensive, self-confirming internalized mental schemas derived from primary attachment experiences (Baldwin, 1992; Bowlby, 1973; Main et al., 1985; West & Keller, 1994). These internalized representations work to affect perceptions of self and others, attributions, expectancies, and other cognitive features important to affective experience (Baldwin, 1992; Collins, 1996; Main et al., 1985). Both the attachment and social cognition literatures converged to underscore the influence of internalized cognitive and personal features upon social and affective functioning.

A lack of "stage salient" environmental support was found to place children at risk socially and emotionally. What this means is that children require appropriate and timely support in order to achieve developmental potentials. A number of studies provided empirical support for the theoretical notion that impoverished attachments increase the risk of relational and emotional problems. Evidence of these influences was found from infancy through to adulthood, suggesting that the relational stance or set fostered by primary attachments has life span significance (Pastor, 1981; Roberts, et al. 1996; Rosenstein & Horowitz, 1996). The factors generating this risk were indicated to be compromised relational abilities and poor emotional resilience.

Affective health was found to be associated with internal working models that constructively influenced both the quality and interpretation of social experience. The qualities composing healthy working models were suggested to cultivate resilience because they equip children with an active and hopeful stance toward the social world, functional cognitive features, and personal features such as positive self-esteem and feelings of belonging. Compromised relational ability (poor social competence) was implicated to be both an attachment outcome and a contributor to the genesis of depressive symptoms.

The link between attachment and depression seems to be well established. A review of the literature examining this relationship has identified social competence and internalized cognitive features such as expectancies and attributions as functional outcomes of primary attachment relationships (Cummings & Cicchetti, 1990; Main et al., 1985)). Compromised attachments were noted to generate stress because they did not support the healthy development of inherent relational capacities that engender emotional resilience. Without affective resilience, vulnerability to stress and psycho-pathology are more probable.

Delineation of the Research Problem

Object relations theorists (e. g. Sullivan, 1953), and attachment theorists (e. g. Bowlby, 1958) had maintained that the emotional health of children was influenced by internalized features. Although subsequent research had established an association between attachment and depression, little had been done to demonstrate how these internalized features operated to influence affective health. The researcher proposed that a multidimensional social competence measure would provide evidence of an important aspect of the internal working model - relational competence. Following from this hypothesis, the social competence measure was expected to correlate significantly with both attachment outcome and affective health measures.

This study was aimed at building upon the conceptual advance contributed by Main et al. (1985) to Bowlby's notion of the internal working model (Bowlby, 1958). This conceptual advance was achieved by demonstrating that internalized personal and cognitive features were consistently related to affective well being. Internalized features such as expectancies, attributions, self-esteem, sense of personal competence, and other features have been demonstrated by social-cognitive research to influence affective health. It is by influencing the quality of cognitive and relational features that attachment relationships are thought to influence affective health. Indeed, Allen et al. (1996) maintained that an inability to participate in satisfying social relationships generated what they termed "enduring vulnerabilities to psychopathology". Exploring the relationship of social competence to attachment and affective health may establish it as an important outcome measure and predictive variable.

A Research Direction

A substantial body of evidence was assembled from the literature review to support the view that depressive symptoms in childhood result, at least in part, from compromised attachment outcomes. Also supported by the review was the notion that emotional resilience was strongly associated with supportive attachment histories and outcomes (Kobak & Sceery, 1988; Rutter, 1985; Sroufe, 1987, 1996; Toth & Cicchetti, 1996). Left virtually unexamined, however, has been the question of how poor attachments promote the genesis of depressive symptoms. The relationships of these variables during the latency period (ages 10 - 13 years) has also been under-investigated. Investigating the role of social competence in the etiology of affective symptoms was another goal.

The age group examined had been under-studied, perhaps because the flagrant adult expression of depressive symptoms is uncommon in children of this age. Developmentally this period is of interest because children in this group have begun to operate autonomously but are not likely to have made the dramatic break with parents that characterizes older, high school aged adolescents. As more time is spent dealing with peers and making forays into the extra-familial world, it is likely that children would experience emotional stress commensurate to the quality of the relational abilities previously cultivated within their primary attachment relationships.

The literature suggested that relationally challenged children were vulnerable to a variety of psychopathological conditions (e. g. Del Carmen & Huffman, 1996). Also suggested was that poor resilience increased psychosocial vulnerability (Rutter, 1987). Further suggested was that higher levels of affective symptoms would be expected in poorly attached children because they would be less successful at contending with the emotional stress generated by adverse social environments. The study was designed to investigate the above relationships and hypotheses related to the proposed sociogenic model of depression.

Statement of Hypotheses

The research hypotheses that follow emerged from questions arising from the literature review and were examined by investigating the inter-relationships of attachment risk features, attachment outcome, social competence, and affective health measures. This review of the literature and of attachment theory led to the formulation of the following hypotheses:

Hypothesis 1: Viability of Sociogenic Model

The inter-correlations of employed variables will be significant and in directions that support the proposed sociogenic model of depression.

Hypothesis 2: Group Differences Risk and Attachment Outcome

The non-referred group will be found to be significantly less at risk and more attached than the referred group.

Hypothesis 3: Attachment Risk vs. Attachment Status

Attachment risk will be predictive of attachment status.

Hypothesis 4: Attachment Patterns, Referred vs. Non-referred Group

There will be significant differences between the referred and non-referred groups with regard to the pattern and strength of attachments to mother, father, and peers.

Hypothesis 5: Attachment vs. Social Competence

There will be a significant, positive relationship between attachment outcome and social competence (considered a resilience measure).

Hypothesis 6: Social Competence vs. Depressive Symptoms

Social competence will be predictive of affective health (depressive symptoms).

Hypothesis 7: Developmental Influences on Studied Variables

Developmental influences and features unique to the age group studied will be evident.

CHAPTER III

METHOD

Participants

Two groups of children aged 10 to 13 years and their parents took part in this study. Elementary school children (N=41) attending grades 4-7 at three different schools within the same community composed the non-referred sample. Several nine-year-old grade 4 students were included in the non-referred group because of their ability to read and comprehend research protocols. Children (N=34), representing the same age group and directed to provincial mental health facilities because of concerns related to behavior and family discord, provided the referred sample. All subjects participated freely and with parental consent.

Care was taken to gather a non-referred sample that represented a socio-economic (SES) cross-section of the community by accessing schools that served socio-economically distinct areas of the city. No such effort was taken with the referred group given the comparative difficulty in gathering this sample. The primary language of all participants was English. The vast majority of participating children were Euro-caucasian (92%) while the remainder were of Aboriginal (5.5%) and East Indian (2.5%) descent. None of the participating children had diagnosed developmental or learning disabilities and all were attending school.

Sample Characteristics

Sex

The groups differed in a number of respects. For example, 25 of 41, (61%), of the non-referred group was male compared with 28 of 34, (82%), of the referred group. The two populations varied significantly on this gender variable ($p \leq .05$). The predominance of males in both samples is of interest and may reflect the common observation that boys externalize when stressed, especially in response to familial stress. Boys may also have been over-represented in the study due to a general parental concern related to higher levels of externalizing behavior. The tendency for females to internalize stress may have contributed to the under-representation of females in both groups, as, in the age group studied, they would not tend to present with high profile, problematic behaviors.

Age

The mean age of the total sample of child participants was 11 years, 4 months, with the mean of the non-referred sample being 11 years 3 months, and of the referred sample being 11 years 5 months. The dependence upon voluntary participation in the study meant that the researcher did not have strict control over sample characteristics other than age range, lack of learning disorders, and absence of developmental disabilities.

Socio-economic Status

Race and SES were not included as formal variables, although care was taken to ensure that the non-referred, comparison sample was drawn from schools representing a cross section of SES within the community. The study focused upon the relational characteristics of families. Strict control of the SES variable was not viewed as necessary because of this relational focus. Children from both samples came from a variety of parenting arrangements including adoptive, single mother and father homes, two-parent with step mother or step father homes, common-law relationships, grand parental homes, and intact two-biological parent homes. The non-referred sample contained parent representatives ranging from professionals through to tradesmen with traditional, blue-collar jobs, and included some families supported by minimum wage jobs and income assistance supplements. The referred group also contained a range of SES categories but contained more families receiving income assistance and low incomes. Lower family employment status among families seemed associated with relational risk variables (i.e. younger maternal age at childbirth, less schooling, more single parent homes, parental separations and divorce, etc.), features more frequently associated with referred families.

Research Design

Comparing two relationally distinct groups of children offered the opportunity to evaluate the influence of compromised attachment upon a number of social and affective outcomes. In order to examine this influence, the researcher devised a comparative, retrospective study. This type of study may yield rich descriptive data about particular disabling conditions (e. g. depression, poor attachment) as specific features can be measured and compared to normative data as well as to a matched, non-referred group. This approach also enabled the exploration of a possible mechanism of influence upon affective health.

A between-groups design was selected to examine the hypotheses emerging from a review of the theoretical and research literatures. This approach provided the opportunity to gather data about the effects of early, primary attachment experiences as present developmental outcomes could be interpreted in relation to historical risk factors. Other variables could also be similarly anchored to this historical data and new relationships explored. Because poorly attached children were indicated by the literature to be over-represented in the referred population, gaining information about risk factors and the developmental outcomes of this sub-population should prove to be of value to both clinical and prevention efforts.

Data Collection and Recording

Procedure

One aim of this study was to compare two groups of children (referred and non-referred) on a variety of historical attachment risk variables and measures of social, relational, and affective health. It was hypothesized that, as a group, referred children would differ significantly from their non-referred peers on the selected measures outlining the proposed sociogenic model of depression. The two groups of children examined in this study (aged 10 - 13 years) were formed on the basis of referral status. The obtained information was incorporated into the assessments and treatment plans of referred children. Parents of non-referred children indicated to be at risk were directed toward supportive resources.

Ethical clearance for the study was received from the Department of Educational Psychology at the University of Alberta. Agreement to participate in the study was received from a school district and two provincial Mental Health agencies providing family support services to the same community. The catchment areas of the three participating elementary schools represented a socio-economic cross-section of the community, as they drew from inner-city, blue collar, and middle to upper-middle class areas of the city.

Data was collected from June, 1994 to August, 1996. Each parent participant was provided with an Introductory Letter and Consent form (see Appendix A). The letter described the nature and general purpose of the study and was personally signed by the investigator. These items were delivered in a mass classroom based send-out to the families of participating school children and to referred families via the agencies with which they were involved. Care was taken to ensure that the instruments administered to children and sent to parents were matched to the study number associated with each child. This was done to ensure that the information associated with each child cohered as a distinct and valid data set. As the data were collected from two distinct settings, the procedures employed varied slightly and will be separately outlined.

Protocols were hand scored according to strict criteria and then re-scored to reduce the chance of error. The CBCL was computer scored utilizing the (1991) program. Individual responses to scale items were tabulated for the AHI and IPPA internal reliability coefficients computed. The data was tabulated onto Excel spread sheets in both total item and summary score formats. Reliability checks were completed employing the SPSS statistical program on portions of instruments lending themselves to such analysis. Summary scores were then analyzed by t-tests to compare the differences between the two groups on selected measures. Inter-correlations between all of the study's summary variables were also calculated. The SPSS program was also employed for data analysis. This program was used to calculate summary scores, scale reliabilities (Cronbach alphas), to test for significance of mean differences (t-tests), to perform regression analyses, and to reveal response pattern differences between groups.

Step-wise multiple regression analyses were performed in order to gain information about the contribution of attachment outcomes and social variables to the genesis of depressive symptoms. A similar analysis was done to test the hypothesis that social competence related to both attachment outcome and affective health. Non-parametric tests of independence were employed to test the hypothesis that the parameters of interest in the study were independent of each other. This enabled an interpretation of results that allowed a statement of the predictive strength of association, not only a statement about significance level.

AHI data was also examined for risk factors that most clearly differentiated the two groups. Scaled relational and historical data obtained by the AHI were particularly informative in this regard. This scaled data was tabulated in order to provide the basis for between group comparisons and to identify items salient to the genesis of social competence and affective health. The procedures employed to gather the two groups of children involved in this study are covered in the following section.

Non-referred Sample

Project descriptions, consent forms, and copies of instruments used in the study were distributed to the principals of participating schools. The researcher then approached the Parent Advisory Councils of interested schools to explain the project and to gain the endorsements of these groups. Once endorsed, the researcher approached participating classroom teachers and provided them with written and verbal explanations of the project. A description of the project and consent forms were then distributed via classroom teachers to the parents of grade 4, 5, 6, and 7 students of each school. The researcher collected parent-signed consent forms from each school and arranged group administrations of the Reynolds Child Depression Scale (RCDS) and Inventory of Parent Peer Attachment (IPPA) to participating children in their home schools. Parent forms were delivered by hand to residences along with stamped, return addressed, envelopes.

In order to increase the validity of results, the researcher, before administering the instruments to children, displayed overheads of protocols and explained the format of each instrument, and provided sample items to each group. Children who exhibited reading or comprehension problems were excluded from the sample. Care was taken to ensure that students were spaced for privacy. Participants were encouraged to ask for clarification of item content if needed. The researcher emphasized the confidentiality of the information to be shared, explaining that it would only be identified by a study number. Administered protocols were pre-numbered, coded, and double-checked to ensure they adhered as valid data sets.

Referred Sample

The sample of referred children was gathered from two Mental Health Centers and a contracted family service organization within the same community. Two of the study's instruments (the RCDS and IPPA) were introduced to the intake procedures of these resources. These instruments were individually administered to referred children by clinical staff who had been trained by the researcher. Care was taken to instruct those gathering this information to present the instruments in a standardized way to parents and children. As with the non-referred group, the instructions accompanying each of these published instruments were read verbatim and the availability of the examiner to clarify items was clearly communicated.

Parents of referred children were provided with written descriptions of the study and Consent Forms (See Appendix A). Parents willing to participate were then asked to complete the Attachment History Inventory (AHI) and the Child Behavior Checklist (CBCL). These instruments were delivered to participating parents along with stamped, return-addressed, coded envelopes, and explanation letters. The integrity of data sets was assured by assigning each child with a study number and coding these numbers on the instruments presented to individual children and their parents. A master list was created that contained the names and assigned study numbers of participating children. Child and parent protocols for the two groups were differentiated by code letters ("C" for referred and "S" for school based participants). Upon return, parent materials were joined with corresponding child data to make individual data sets.

Instruments

Data were gathered via four instruments, two for child participants, two for their parents. What follows is a description of these instruments.

Attachment Risk Measure

Attachment History Inventory (AHI). The AHI (Sundby, 1995) (see Appendix B) was designed to gather information indicated by the attachment literature to be relevant to the cultivation of parent-child attachment relationships. This 48-item instrument was designed to assess attachment-related risk factors present in the relationship histories of participating children. These items fell into the categories of Health Risk (5 items), Family Risk (17 items) and Relational Risk (26 items). Items were chosen for inclusion after a review of attachment literature. A further refinement of item content was achieved by expert sort. The level of agreement (eighty percent) achieved by this sort resulted in both the exclusion and refinement of scale items. A small pilot study (N= 14) also served to refine the scale by removing ambivalent items and wording and incorporating parent feedback. The internal reliability of the total instrument was found to be an adequate .85 (Cronbach's alpha) with the population studied (N=68). The Relational Risk sub-scale was found to have an internal reliability of .86. The items composing this Inventory were derived from the attachment literature providing it with both face and content validity. The overall attachment risk score gathered by this instrument was found to correlate significantly, and in anticipated directions, with all of the major summary variables of the study. The AHI correlated with the IPPA, CBCL Total Competence measure, and Reynolds Child Depression Scale at -.47, -.64, and .47 respectively, all at the $p < .001$ level of significance. These findings further attest to the validity of this instrument as a measure of attachment risk. Descriptions of the categories of risk assessed by the AHI are listed below:

Health Risk - items ranging from the existence of prenatal problems, premature birth, early illnesses and hospitalizations, and separations due to illnesses were included in this section of the Inventory. These items were gleaned from the attachment-related literature and represent circumstances identified as potential risk factors.

Family Risk - the seventeen items in this section of the Inventory represented family features identified in the literature as attachment risk factors with the potential to contribute to compromised attachment and low levels of emotional security in children. Items such as the age of natural parents at birth, relational status of parents at birth, present relationship of natural parents, number of moves, losses due to death, separations, and the existence of parental mood disorder are examples of items included in this section of the Inventory.

Relational Risk - this final section of the Attachment History Inventory was composed of 26 items arranged on a 5-point Likert scale. These items were also gleaned from the attachment literature and refined by expert sort before being included in the Inventory. A small pilot study, expert sort, and statistical item analysis were employed to further refine this Scale. This scale measures parental perceptions of children with regard to their relational abilities. Parent perceptions of the child and of the parent-child relationship were rated in areas such as: proximity seeking, social competence, emotional openness, parental feelings, and felt security. A Cronbach's alpha of .86 was obtained by an analysis of total sample responses to these scale items, indicating good internal reliability.

Attachment Status Measure

Inventory of Parent Peer Attachment (IPPA). The IPPA (Armsden & Greenberg, 1987) is a self-report instrument designed to assess the cognitive and affective qualities of the responding child's relationships with each of their parents and with peers (close friends). Inventory items stem from the theoretical framework of attachment theory, originally formulated by Bowlby (1969, 1982). This inventory was designed to assess the dimensions of mutual trust, communication quality, and extent of anger or alienation perceived by the child to presently exist in their primary relationships with parents and peers. A 5-point Likert-scale response format is employed offering the respondent selections ranging from "Almost never or never true" to "Almost always or always true". Three week test-retest reliabilities for a sample of older adolescents ranged from .93 and .86 respectively for Parent and Peer Attachment scores. The internal consistency alphas of the Trust, Communication, and Alienation sub-scales of the IPPA prototype parent scale were .91, .91, and .86 respectively.

Respective Peer scale internal consistency coefficients for T (Trust), C (Communication), and A (Alienation) sub-scales were .91, .87, and .72. Test-retest reliability coefficients over a three-week interval were .93 for the Parent scale and .86 for the Peer scale. Concurrent validity was also reported to be excellent with scores correlating with measures of self-concept, self-esteem, life satisfaction, problem solving and locus of control. Scores were found to correlate negatively with measures of depression and loneliness and to discriminate delinquent from non-delinquent children (Armsden & Greenberg, 1987). Although originally developed for use for late adolescence, the IPPA has been found useful in the assessment of attachment relationships from age 10 to 20 years (Armsden, McCauley, Greenberg, Burke, & Mitchell, 1990).

The three sub-scales of the IPPA (Trust, Communication, and Alienation) are important relational dimensions influenced by attachment. A general description of these sub-scales is as follows:

1. The Trust sub-scale measures the degree that children are able to confide and rely on their mother, father, or peers for support in matters that relate to their felt emotional security and feelings.

2. The Communication sub-scale measures the felt availability of parents for the sharing of feelings in a manner that promotes psychological security.

3. The Alienation sub-scale measures the degree of estrangement felt in the child's relationships to parents and peers.

The IPPA was hand scored along criteria set out by and obtained from one of its authors, Dr. Mark Greenberg, via personal correspondence. The overall attachment score was calculated by subtracting the Alienation Sub-scale score from the sum of the Trust and Communication Sub-scale scores. In this study Cronbach alphas of .91, .96, and .87 were achieved for the Mother, Father, and Peer scales respectively, findings similar to those obtained in previous studies (e.g. Armsden & Greenberg, 1987).

Social Competence Measure

CBCL Total Competence Scale (CBCL). The CBCL Total Competence scale was adopted as a measure of social competence for the purposes of this study. This scale was chosen because of the careful consideration given by its authors to the relevance of its items to aspects of social competence that clearly differentiated adapting from non-adapting children (Achenbach, 1991). This scale taps abilities related to social and relational skills with peers and siblings, autonomy, responsibility, and participation and effort in activities. These competence areas are thought to relate to outcomes associated with positive attachments and positive relational histories. These features are also highly associated with resiliency (Demos, 1989; Werner, 1984).

The CBCL Competence sub-scales (Activities, Social, and School) have all been found to significantly ($p < .01$) discriminate non-referred from referred children (Achenbach, 1991). These scales were normed on a non-handicapped national (U.S.) sample of seven to eighteen year olds. CBCL Competence scale scores were negatively skewed in the normative sample, indicating that most of this sample achieved high competence scores, an expected finding. Low scores are, therefore, clinically significant on the Total Competence scale. The CBCL Total Competence scale was used by this study as a measure of social competence and resilience because of its careful construction and content.

Affective Health Measures

Reynolds Child Depression Scale (RCDS). The RCDS (Reynolds, 1989) was designed to provide self-report data pertinent to the affective health of children. It was developed to assess children ranging in age from 8 to 12 years (grades 3-7). The RCDS standardization sample was found to have high reliability coefficients ranging from .87 to .90, with a total sample reliability of .90 (Reynolds, 1989). Gender and grade reliability estimates range from .87 to .91. Test-retest reliability coefficients have been found by Reynolds and Graves (1989) (as cited in Reynolds, 1989) to range from .81 to .92 in the grade 3 to 6 group, after a four week interval and, according to Breen, 1987 (as cited in Reynolds, 1989) at .82 for grade 5 students after a 2 week interval. The standard error of measurement of the RCDS demonstrated little variability, approximately 3 to 4 raw score points. These findings suggest that the RCDS is a reliable and stable measure of children's self-reported depression levels. These strong indications of reliability have implications for the validity of the RCDS as a measure of depressive symptoms in children. Items on the scale have been consistently found to cluster and to present an internally consistent measure of depression.

Content validity of the RCDS was obtained by ensuring that items corresponded to the diagnostic criteria for depression outlined by the Diagnostic and Statistical Manual, Third Edition - Revised (DSM-III-R), Research Diagnostic Codes (RDC) and formal clinical interview materials. Items also reflected symptom clusters noted to exist in depressed children (Reynolds, 1990).

Child Behavior Checklist Internalization Scale (CBCL). The CBCL (Achenbach, 1991) is an instrument designed to enable the standardized reporting of a variety of behavioral problems in children aged 4-18 years by parents or other familiar adults. The T-scores of the Total Competence and Internalization Scales were used in this study as measures of general social competence and depressive tendency respectively. The CBCL has been widely used in research related to the behavioral and affective responses of children to a variety of life circumstances. It is a self-report inventory that has been refined through a series of editions, each of which has been pilot tested with parents of children referred for a variety of mental health challenges. This study employed the most current, 1991 edition of the CBCL.

The CBCL is composed of 118 items that encompass a wide range of problematic behaviors. Each item is rated on a three-point scale (0-2) that offers response options ranging from "Not True" to "Somewhat or Sometimes True" to "Very True or Often True". Scores are derived and compared to sex and age-based normative data resulting in a behavioral profile composed of a variety of Scales. The "internalizing" dimension of the CBCL included scales assessing somatic complaints, schizoid, uncommunicative, immature, and obsessive-compulsive features. Three other scales, the delinquent, aggressive, and hyperactive, comprise the "externalizing" dimension of this instrument.

Scoring CBCL responses involved the conversion of raw scores into T-scores based upon published norms for various age groups and by sex. CBCL protocols were computer scored in order to increase the validity of results by minimizing the chance of scoring error and miscalculation of scale scores. This process also provided information about how scores compared to samples of clinical children. Adequate test-retest reliability was reported by the authors who reported a mean test-retest reliability coefficient of .89 for the Problem Scale scores over a one week period (Achenbach, 1991). Inter-parent agreement for problem scales ranged from .65 to .75 and a "highly significant" agreement between mothers and fathers was found with regard to classifying children in the normal versus the clinical range. Mean scores did not exceed chance expectations over one and two year periods. CBCL scale scores have also been found to detect the effects of intervention efforts in children receiving mental health services. This finding suggests that the instrument is sensitive to changes in the behavioral status of children on the dimensions measured.

The author also reported the CBCL to have sound content validity (Achenbach, 1991). Construct validity was demonstrated by high correlations of the CBCL Total Problems scale with the Total Problems measures of instruments like the Conners Parent Questionnaire (1973) ($r = .82$) and the Revised Behavior Problem Checklist (1983) ($r = .81$) (Achenbach, 1991). Also reported by Achenbach (1991) was that the CBCL discriminated referred from non-referred children who were matched demographically, further bolstering the instrument's claim to criterion validity.

Data Analysis

Data analysis concentrated upon comparing the two groups on the degree of, or presence or absence of relational risk, attachment to parents and peers, social competence, and depressive symptoms. Also explored were predictive power of certain variables. A variety of descriptive statistics including frequencies, t-tests, chi-square, correlations, and multiple regressions were performed by the SPSS program available at the Computing Services Department of the University of Victoria. Group comparisons were made based upon the relative mean performances of the two groups of children and via comparison to published test norms (Achenbach, 1991; Armsden & Greenberg, 1987; Reynolds, 1989). Between-group comparisons of responses to attachment risk items were also made in order to identify what seemed to be potent risk factors.

Summary

In this chapter the methodology selected to investigate hypotheses derived from a selective review of relevant theoretical and research literature was discussed. The participants, design, procedures, instruments, and descriptive statistics employed in the study were described. The methods employed were chosen to test hypotheses related to the origins and interrelationships of attachment related competence features and the influence of these features upon the development of depressive symptoms.

CHAPTER IV

RESULTS

One aim of the study was to statistically compare a group of relationally challenged, referred children to non-referred children to determine if they differed on selected measures of attachment, relational health, and affective well being. A number of hypotheses related to the contributions of attachment risk and outcomes to social and affective health were also tested. The hypotheses that social competence reflected attachment-generated qualities of the internal working model and that these qualities operated to influence affective experience were also explored. The purpose of the study was to test what the attachment literature had suggested was a plausible, sociogenic explanation for the development of depressive symptoms in childhood.

The existence of inherent human social and affective potentials and their dependence upon social support for cultivation were central assumptions of the tested model, depicted in Figure 1 below.

Figure 1. Variables outlining proposed sociogenic model of depression.

At-Risk Relational History	->	Poor Attachment Quality	->	Low Social Competence	->	Poor Affective Health

Stated in words, the model represented by Figure 1 proposes that an at-risk relational history adversely affects attachment quality. Poor attachments then manifest themselves in low levels of social competence. Low social competence operates to negatively influence the quality and interpretation of social experience, which has negative implications for resilience and affective health.

Test battery raw scores were converted to standard scores (mean = 100, standard deviation = 15) using age norms and standardized procedure. The acquired data was analyzed statistically via t-tests, Pearson r, Chi-square, Regression Analysis, and between-group item incidence comparisons to test hypotheses related to (a) the inter-relationship of variables, (b) between-group differences, (c) predictive significance, and to (d) reveal salient risk factors. Hypothesis testing involved comparing the two groups in the above areas and analyzing the data for risk factors and predictive value of attachment outcomes for affective health. An alpha level of .05 was used for all statistical tests.

Research Hypotheses: Results

The results of the study supported most of the main hypotheses and are presented below.

Hypothesis 1: Viability of Model

Hypothesis 1 stated that the significance and direction of the inter-correlations of the variables employed would support the proposed sociogenic model of depression. Table 1 presents the inter-correlations of the composite measures representing the main features of this model. These summary measures were found to correlate significantly and in directions consistent with the proposed model.

Table 1

Total Sample Inter-Correlations and Significance Levels* for the Four Major Summary Measures

Measure	1	2	3	4
1. AHI-Total	-	-0.47***	-0.64***	0.47***
2. IPPA-Total		-	0.35**	-0.54***
3. SOCIAL COM			-	-0.50***
4. RCDS-RS				-

*Note. One tailed tests.

**p < .01. ***p < .001.

This model proposed that attachment or relational history (AHI) influenced attachment outcomes (IPPA) which, in turn, were reflected in social competence levels (CBCL Total Competence scale), which acted to influence affective health (RCDS, CBCL Internalization scale). The significance levels of these correlations were at the $p < .001$ level, with the exception of that between the IPPA Total score and the CBCL Total Competence measure ($p = .002$). Anchoring other variables to the Attachment History Inventory risk measure was seen as necessary in the attempt to demonstrate the importance of early attachment experience to subsequent affective functioning. Adding this risk measure made it more difficult to view poor attachment as a merely a vestige of depression.

The robust correlations obtained between these measures provided support for the model and the general hypothesis that affective symptoms would be significantly related to attachment quality and social competence. The hypothesis that attachment risk (AHI-TOTAL) would be negatively related to attachment outcomes (IPPA-TOTAL) was supported by the significant negative correlation achieved between these measures. Also, this finding suggested that the AHI was a valid instrument with which to assess the attachment or relational risk of children.

The social competence measure (SOCIAL COM) was also found to correlate significantly in the expected direction with the AHI total risk score. This finding suggested that relational risk was strongly associated with lower levels of social competence. The social competence measure was also found to correlate significantly with the total attachment score (IPPA-Total). Social competence was suggested to be a feature positively associated with attachment quality. The depression measure (RCDS) correlated negatively with both the Attachment and Competence measures and positively with the Attachment risk measure, all significant at the $p < .001$ level. These data supported the hypothesized inter-relationships of these variables.

Table 2 displays the wider correlation matrix and significance levels obtained between the major summary measures and selected sub scales. An examination of Table 2 reveals a variety of interesting and statistically significant inter-correlations ($p < .05$). As can be seen, these correlations were, with one exception, all significant and in predicted directions. These results validated the overarching structure of the proposed model and provided the basis to further investigate other hypothesized relationships.

Table 2

Inter-correlations and Significance Levels for All Major Variables. Total Sample

Variables	1	2	3	4	5	6	7
1.AHI_Hlth-Fam	-	.63 ***	-.48 ***	.46 ***	.54 ***	-.67 ***	.89 ***
2. CBC_IN_T		-	-.27 *	.38 **	.59 ***	-.37 **	.52 ***
3. IPPA_TOT			-	-.54 ***	-.21 (ns)	.37 **	-.39 ***
4. RDS_RS				-	.36 **	-.50 ***	.37 **
5. CBC_SOCP					-	-.41 ***	.46 ***
6. SOC_COM						-	-.63 ***
7. AHI_RRISK							-

*$p < 05$. **$p < .01$. ***$p \leq .001$.

ns - non-significant.

Hypothesis 2: Group Differences: Attachment Risk vs. Attachment Outcome

Hypothesis 2 stated that attachment risk history would be significantly related to attachment outcome, with the non-referred group being less at risk and more attached than the referred group. Table 3 displays the between-group mean differences and significance levels for these attachment risk and outcome measures. As noted in Table 3, all group mean differences obtained for these risk and attachment variables were found to be significant ($p \leq .05$).

Table 3

t-Tests. Attachment Measures: AHI Sub Scales and IPPA Total Score. Referred / Non-referred Groups

Variable	M Difference *	Df	t-value
Sum of AHI Health and Family Risk	-1.57	67	-2.78**
AHI Relational Risk	-10.22	66	-4.15***
IPPA Total	27.89	71	3.18**

*Note. Mean differences calculated by subtracting the referred group mean score from non-referred group mean score for each variable.

$^{**}p < .01$. $^{***}p < .001$.

As a group, referred children scored significantly higher on a combined measure of health and family related risk items and lower on overall attachment to parents and peers. These results lent support to the hypothesis that the two groups would differ significantly with regard to attachment risk and attachment status, with the non-referred group generally experiencing less risk and stronger attachments. The groups also differed with regard to parent ratings of relational risk, items assessing relational competence with parents and peers as well as perceived social support.

Risk Factor Incidence. Table 4 displays the percentage of specific attachment risk features found to most differentiate the two groups. The general finding that the groups differed significantly on the AHI's risk measures (Health-Family risk, Relational risk) prompted a closer look at the individual items composing AHI risk scales. The purpose of this finer analysis was to identify what appeared to be salient risk items. The displayed percentages were obtained by tabulating the incidence of individual risk items within each group, items included in the Health and Family Risk sections of the Attachment History Inventory.

Children in the referred group were found to have experienced higher levels of social loss, parental stress, family conflict, and relational risk. The most discriminating risk items were found to relate to the stability and health of parents and parental relationships. These features were all found to significantly differentiate the two groups ($p < .01$). The hypothesis that referred children would be found to be less attached and to have experienced significantly higher levels of relational risk was supported by these results.

Table 4

Chi-square Values of Differences in Percentage Occurence. AHI Risk Factors. Referred / Non-referred Groups

Risk Item	(N=37) Non-referred	(N=32) Referred	Chi-Square Value and Signif.
Parents Divorced or Separated	38	78	11.33***
Loss of Daily Contact with Parent	41	75	8.29***
Multiple Parent Separations or Divorce	8	41	10.19**
Loss of a Parent To Death	0	12	4.91*
Parental Depression	22	56	8.76**
Out of Home due to Direct Family Conflict	8	31	4.43*
Attachment Risk (Elevated AHI Relational Risk Score)	51	81	6.33*
Health Problems	16	34	3.05 (ns)

Note. The values represent percentages of each group found to experience the listed risk factor.

*$p < .05$. **$p < .01$. ***$p < .001$.

ns - non-significant ($p = .08$).

Hypothesis 3: Attachment Risk Predictive of Attachment Outcome

Hypothesis 3 stated that attachment risk would be predictive of attachment outcome. Table 5 displays the R-squared and standard beta coefficients obtained for a multiple regression analysis of the predictive strength of attachment risk for attachment outcome. While 22 percent of the variance in attachment outcome was accounted for by the risk measure this outcome needs to be interpreted with caution given that 78 percent of the variance was not captured. This result served to provide some support of the hypothesis, while suggesting a measurement problem and/or the operation of other features contributing to variance in attachment outcome.

Table 5

Regression Analysis: Predictive Power of Attachment Risk for Attachment Outcome (IPPA Total) (N=66)

Variable	B	SE B	β
AHI Risk	-1.25	0.29	-.48***

*** p < .001

R2 = .22

Hypothesis 4: Attachment Pattern Differences

Hypothesis 4 stated that the referred group would be significantly less attached to mother, father, and peers than the non-referred group. Table 6 displays the patterns of positive attachments obtained by the two groups.

Positive attachments were defined as IPPA Mother, Father, and Peer scale scores that fell at or above the mean scale scores obtained for these measures by the non-referred group. Non-referred group attachment scores did not differ significantly from IPPA normative data. The patterns of attachment to parents and peers within each group were analyzed by the Chi-square method to determine if significant differences between the groups existed with regard to the overall depth and breadth of attachments to mothers, fathers, and peers. Between-group differences were found to be significant (p = .005), a result supporting the hypothesis that the referred group would be less broadly and deeply attached.

Examination of Table 6 reveals how the two groups differed with regard to attachment investments and support. Such comparisons cast the relative attachment impoverishment of the referred group into relief and suggest that referral status may be a significant attachment risk feature. Of particular interest was the investment of a subset of referred children upon peers for their sole attachment support.

Table 6

Chi-square. Percentage Positive Attachment to Mother, Father and Peers. Referred / Non-referred Groups

	Group		Row Total
Positive Attachment Category	Count Row Pct Col Pct Tot Pct		Number -
	Non-Referred	Referred	
M-F-P*	10.0	2	12
	83.3	16.7	
	24.4	5.9	16.0
	13.3	2.7	
M-F	5.0	4.0	9
	55.6	44.4	
	12.2	11.8	12.0
	6.7	5.3	
M-P	7.0	2.0	9
	77.8	22.2	
	17.1	5.9	12.0
	9.3	2.7	
F-P	3.0	-	3
	100		
	7.3		4.0
	4.0		
M	6.0	5.0	11
	54.5	45.5	
	14.6	14.7	14.7
	8.0	6.7	
F	3.0	2.0	5
	60	40.0	
	7.3	5.9	6.7
	4.0	2.7	
P	-	9.0	9
		100	
		26.5	12.0
		12	
-	7.0	10.0	17
	41.2	58.8	
	17.1	29.4	22.7
	9.3	13.3	
Column Total	41	34	75
Column %	54.7	45.3	100.0

Value	DF	Significance
20.57	7	0.005

Note. Positive attachment = score > *M* IPPA score obtained by non-referred group on IPPA Mother, Father, and Peer scales.

* M: Mother; F: Father; P: Peers.

Table 7 summarizes the between-group differences in attachment to mothers, fathers, and peers. Attachment to fathers emerged as a highly discriminating feature (p < .001), one that will be examined later in the Discussion section. The non-significant differences obtained for the IPPA measures of attachment to mother and peers were unexpected and raised interesting developmental questions. The two groups did differ with regard to attachment to mothers (IPPA-Mother) but not significantly (p = .12). Unexpectedly, attachment scores for the Peer Scale were found to be quite similar for both groups (p = .66).

Table 7

t-Tests. Attachment to Mother, Father, and Peers.

Referred / Non-referred Groups

Attachment Figure	IPPA Mean	SD	M Difference*	t-value
Mother			6.42	1.56
Non-referred	64.42	17.38		
Referred	58.00	18.22		
Father			21.96	4.57***
Non-referred	62.60	16.44		
Referred	40.64	24.44		
Peers			1.71	0.44
Non-referred	47.39	15.82		
Referred	45.68	18.12		

*Note. M differences calculated by subtracting referred from non-referred group M scores.

***p < .001.

The between group comparisons of IPPA sub scale scores are displayed in Table 8. Significant group differences ($p \leq .05$) were demonstrated on all sub scales (Trust, Communication, and Alienation) for the Father scale. The finding that the two groups differed significantly with regard to trust, but not communication or alienation in their relationships to their mothers was also unexpected and of interest. Although the IPPA Mother Trust and Mother Communication sub scales were somewhat discriminating ($p = .04$ and $.09$ respectively), the virtual lack of difference between groups with regard to Alienation from mother ($p = .97$) warrants discussion in chapter 5.

Table 8

t-Tests. IPPA Sub Scales. Referred / Non-referred Groups

Scale and Sub Scale	M Difference	SE Difference	t-value
Mother	6.42	4.12	1.56
Trust	3.66	1.73	2.11*
Communication	3.04	1.75	1.74
Alienation	-0.04	1.24	-0.03
Father	21.96	4.80	4.57***
Trust	9.92	2.03	4.88***
Communication	8.63	2.87	3.00***
Alienation	-3.51	1.28	-2.73**
Peers	1.71	3.92	0.44
Trust	0.14	1.76	0.08
Communication	1.19	1.91	0.62
Alienation	0.27	1.27	0.22

*$p < .05$. **$p < .01$. ***$p < .001$

The hypothesis was partially supported by findings of significant between-group differences with regard to the depth and breadth of attachments to parents and peers as measured by the IPPA Total or composite measure. Attachment to fathers emerged as the most discriminating attachment measure, non-referred children being significantly more attached to their fathers. A significant between group difference ($p \leq .01$) was obtained for all three sub-scale measures of the Father scale (Trust, Communication, and Alienation). Most IPPA Mother and Peer scale comparisons failed to reach significance with the exception of the Mother Trust sub scale ($p < .05$). This pattern of results will be examined at length in the Discussion section.

Hypothesis 5: Attachment Predicts Social Competence

According to hypothesis 5, attachment outcome would be predictive of social competence. In this study, social competence was regarded as an attachment generated resilience measure composed of important personal and cognitive relational features. It was reasoned that attachment quality would be manifested in the social competencies and relational features that characterized individual internal working models. Table 9 displays R-squared and standardized beta coefficients resulting from a univariate regression analysis of the global attachment measure (IPPA-Total) on the dependent variable Social Competence. In this study, the IPPA measure was found to account for 11 percent of the variance in the social competence measure.

Table 9

Regression Analysis: Predictive Power of Total Attachment Measure for Social Competence Level

N = 66

Variable	B	SE B	β
IPPA_ Total	0.09	0.03	0.35**

R2 = .11
**P < .01.

Hypothesis 6: Social Competence Predicts Depression Symptoms

Hypothesis 6 stated that social competence would be predictive of affective status. Between-group differences for measures of social competence and depressive symptoms were also examined and are displayed in Table 10 below. As noted, the two groups did differ significantly on one of the two measures of affective status and on both measures of social functioning. Mean Difference scores were consistent with anticipated group differences based on the proposed model of depression. As expected, the referred group demonstrated significantly higher levels of internalizing behavior, higher, nearly significant differences in levels of depressive symptoms, more social problems, and significantly less social competence. The significant correlations obtained between the Social Competence measure and both measures of affective status (RCDS and CBCL Internalization Scale) also supported the hypothesis. The results were theoretically consistent with what would be expected from a comparison of a relationally challenged and typical group.

Table 10

t-Tests. Affective and Social Measures. Referred/Non-referred Groups

Variable	*M* Difference*	t-value	Df
CBCL_INT T-Score	-11.40	-4.25***	67
RDS_RS	-5.49	-1.92 (ns)	71
CBCL_SOC_PROB	-5.34	-2.40*	67
CBCL_SOC_COMP	9.16	4.23***	67

* Mean difference calculated by subtracting the referred group mean score from the non-referred group mean score.

*$p < .05$. ***$p < .001$.

(ns) neared significance ($p = .06$).

A stepwise regression analysis involving the three other summary variables was performed on the dependent variable RCDS. Table 11 reports the R-squared and standardized beta coefficients resulting from this procedure, which saved two variables: IPPA Total and Social Competence. Both equations contributed unique and significant variance to the dependent variable (RCDS) with adjusted R-squares of .29 and .38 respectively.

Table 11

Summary of Stepwise Regression Analysis for Variables Predicting Depressive Symptoms (RDS raw score) (N=67)

Step and Variable	B	SE B	β
Step 1			
IPPA Total	-0.17	0.03	-.54***
Step 2			
Social Competence	-0.43	0.13	-.34**
IPPA Total	-0.13	0.03	-.42***

Note. Adjusted R2 Step 1 = .29; R2 Step 2 = .38

$^{**}p < .01$. $^{***}p < .001$.

Hypothesis 6 was supported by the data indicating that the total attachment and social competence measures were predictive of depressive symptoms. Of the two saved variables, IPPA Total contributed the most unique variance to depressive symptoms, suggesting that this measure was highly associated with depression. As hypothesized, social competence was also found to contribute significantly to depressive symptoms.

Hypothesis 7: Developmental Influences Upon Attachment

This hypothesis stated that the data would suggest developmental influences, features unique to the age group studied. Chapter 5 will provide discussion of each of the observations listed below:

1. A close, sub scale analysis of measures of attachment to mothers, fathers and peers revealed interesting developmental features. Among these were: strong group differences with regard to attachment to fathers and a curious referred group pattern with regard to attachment to mothers (a surprisingly low sense of alienation from mothers in spite of poor communication and low trust).

2. It was noted that parent reports of internalizing behaviors were generally higher than child reports of depressive symptoms when these scores were compared to age norms.

3. Both groups reported lower than expected levels of attachment to peers.

Subsidiary Findings

An interesting subsidiary observation that underscored the preeminence of the mother-child relationship came from examining which parent completed the CBCL. Eighty-six percent (86%) of the total sample CBCLs were completed solely by mothers. Nineteen percent (19%) of the non-referred group's CBCLs were completed jointly by both mother and father. Five percent (5%) of this group's CBCLs were completed solely by fathers. None (0%) of the referred group's fathers or father figures took part in completing the CBCL. Father involvement was, once again, a feature that clearly distinguished non-referred from referred children. This was revealed by other measures of relationship used in the study as well. The pre-eminence of mothers with regard to primary care-giving and day-to-day involvement was also strongly suggested, especially for the reference group. This finding may explain the dependence upon mothers noted in both samples. In spite of increased involvement in the external environment, mothers were suggested to have maintained the role of central caregiver, a situation that may be contributing to the rise in social stress noted above.

CHAPTER V

DISCUSSION

The study was prompted by evidence that the incidence of depressive disorders in children had increased rapidly since the end of the Second World War. Rapid technological and social changes were reasoned to have changed or compromised social environments, dramatically altering the conditions under which fundamental adaptations had been established (the environment of evolutionary adaptiveness). It was reasoned that these changes had made it more difficult for children to achieve emotional security and to form secure or positive attachments. The concurrence of massive social change, a documented rise in the incidence of depressive disorders, and ethological evidence of an inherently social aspect to human nature, provided the rationale for questioning whether the genesis of depression involved, at least in part, the influence of compromised attachment and consequent relational dysfunction.

Interpretive Position

The results of this study are most clearly understood when considered in the light of the theoretical framework provided by attachment theory (Ainsworth & Wittig, 1969; Bowlby, 1958, 1969). Widely recognized as a major developmental concept, supportive attachment was initially theorized to contribute to species survival by ensuring the physical survival of dependent infants. It has become increasingly recognized that supportive attachment contribute to social and emotional well being by fostering schemas of self, others, and world, features that provide the foundation for social interactions and the interpretation of social experience, Positive attachments are now theorized to provide, via the healthy relationship features they cultivate, the capacity to constructively initiate, organize, and interpret social experience and to exert a corresponding influence upon affective health.

Successful attachment was found by this study and previous research to be strongly associated with emotional resiliency (Alan, et al. 1996; Rutter, 1985; Sroufe, 1990). Developmentally, attachment outcomes had been found to be predictably associated with internalized decisions about the self (i. e., competence, self-worth, self-esteem) and cognitive attributes such as expectancies and attributions (Baldwin, 1992; Main, et al. 1985). These features were believed to act in concert to impact affective health by exerting a perpetuating influence upon the quality and interpretation of social experience. In summary, these findings suggested that the cognitive and interpersonal attributes cultivated by primary attachment relationships influence social and affective experience.

Attachment theory and associated research, then, have provided the basis for a new view of human depression, one premised upon the existence of an inherent relational nature that required complimentary, stage salient social support for its healthy development. Research findings in this area have implicated social and relational variables as contributors to the development of depressive symptoms in childhood. The inherently social nature of humans is theorized to interact with primary attachment figures to result in internalized conclusions about the self and self in relation to others. Cognitive features such as attributions and expectancies are theorized to result from this interaction and to impact affective resilience by influencing the quality and interpretation of social experience.

As in other studies (e. g. Bradley et al., 1994; Demos, 1989; Rutter, 1987; Sroufe, 1996; Werner, 1984), this study found resilience to be associated with attachment relationships characterized by high levels of trust, communication, closeness, security, self-confidence, competence, a positive, hopeful outlook, and other features associated with an active approach to social challenges. Poor resilience was found to be associated with affective vulnerability (Armsden, et al. 1990; Kobak, Sudler, & Gamble, 1991) and other negative developmental sequelae (e. g. Patterson et al., 1989).

Converging with the above findings, quality of attachment was found to play a central role in fostering individual differences in vulnerability to psychosocial stress (Collins, 1996; Rutter, 1987; Toth & Cicchetti, 1996). Previous research had supported the view that long-term behavioral and emotional consequences were associated with compromised attachment outcomes (Allen, Hauser & Borman-Spurrell, 1996; Sroufe, 1983; Speltz et al., 1995; West, et al. 1993). Longitudinal investigations had also indicated that attachment classifications tended to be stable over time (Bretherton, 1985; Grossmann & Grossmann, 1991; Kaplan, 1987; Main et al. 1985; Sroufe, 1979). This stability was believed to be due to the tendency to construct, interpret, and defend the conclusions derived from social experience via stable features of individual relational schemas e. g. West & Keller, 1994). The consistent employment of depressogenic schemas was naturally theorized to lead to stress and depressive symptoms.

Although the association of attachment with facets of emotional health had been amply recorded in the literature, little work had been done to construct a comprehensive system that explained how positive attachment operated to promote emotional health. Meanwhile, the view of depression that emerged from this theoretical position and a large body of associated research provided the basis for this present research effort.

Allowing that children could be depressed and that attachment outcomes contributed to depressive symptoms by way of the influence they exert upon self-evaluations, cognitions, attributions, and expectancies were important conceptual advances. The developmental contribution of positive attachment has now, therefore, been extended to include emotional health, which has been shown to be dependent upon the operation of resilient personal and relational qualities. These features have been shown to strengthen resistance to psychopathology (Allen et al., 1996; Emde, 1989; Roberts, et al., 1996; Rutter, 1987). With the establishment of this important relationship, a viable explanation for the noted increased incidence of depression was available, one that considered the effects of dramatic social changes upon an inherent human need for responsive and validating social supports and relationships.

Successful attachment was found to foster what Rutter (1985) termed "protective factors", social and relational competencies associated with emotional resilience. Resilience, in turn, was suggested to provide children with resistance to depression generating stress (Demos, 1989; Werner, 1989). From a preventative standpoint, efforts to engender resilient personal qualities would have significant impacts upon the incidence of depression and related psychological disorders throughout the life span. The cognitive features and competencies associated with attachment generated resilience were also identified as outcomes of secure attachments.

Observed from the attachment perspective, affective health is dependent upon the individual's ability to resist stress and derive nurture and support from relationships. What supportive, secure attachments provide for humans, it seems, is a positive relational stance or "interpersonal context" (West & Keller, 1994) that influences motives and affects. This assertion was at least partially supported by the inter-relationships of the variables employed in this study and was consistent with prior research findings (e. g. Baldwin, 1992; Main, et al. 1985) and clinical work (e. g. West & Keller, 1994). Positive, primary attachment relationships with parent/caregivers were found to be significantly associated with social competence, a measure that evaluated how successfully children had met age appropriate relational demands and expectations.

The major, guiding hypothesis of this study was that compromised attachment outcomes placed children at risk by compromising their relational competence. Theoretically, poor social competence was expected to result in both low emotional resilience and a corresponding affective vulnerability. By setting off this series of influences, poor attachment operates to set the stage for the emergence of depressive symptoms. Again, data from this current study substantiated the above outlined relationships by demonstrating significant and directionally confirming inter-correlations between the variables composing the proposed model. The inter-relationships of these variables clearly suggested the importance of attachment generated relational features to the genesis of depressive symptoms.

In short, attachments that promoted security, a sense of competence, validation, and the development of qualities composing what West and Keller (1994) termed the "affiliative component" were found to promote resilience and affective well being. Affiliative features include the skills required to meet intimacy needs, the confidence to explore the environment, and the ability to develop skills and interests. These features were found to be associated with both emotional resilience and positive, internal, attachment-fostered relational features.

General findings around the viability of the proposed sociogenic model of depression, between group differences, and for each of the major variables studied will now be discussed. This discussion will include the results as they relate to the specific hypotheses formulated.

Viability of Sociogenic Model

One major goal of this study was to investigate the relationship of measures outlining the proposed sociogenic pathway to depression (see Figure 1, page 66). It was hypothesized that these measures would inter-correlate in a significant and predictable manner to support the proposed model of depression. The model had been developed from a review of the attachment literature. This research effort assessed attachment history variables, current attachment levels to parents (mother and father) and peers, social competence, and depressive symptoms within and between two distinct populations. The inter-relationships of these variables and their contributions to the genesis of depression were assessed.

Several assumptions were represented within the model. First, it was assumed that the referred group would be found to have higher attachment risk scores due to their identified histories of problematic family relationships. Greater attachment risk level, compromised attachment to mother, father, and peers, lower levels of social competence, and higher levels of depressive symptoms were expected in the referred group. The findings largely confirmed these expectations by revealing between group differences. Also, significant and directionally anticipated correlations were obtained between the major measures and most sub-scale measures. The results converged with previous research findings by revealing strong relationships between attachment, internalizing behaviors, and depressive symptoms (e. g. Armsden, et al. 1990). Poor social competency had also previously been found to be associated with depression (e. g. Puig-Antich, et al. 1985) but had been commonly regarded as a consequence of depression, not as a predisposing or contributing feature. The relationship of this variable to measures of attachment outcome and depressive symptoms suggested that it had been well placed in the model.

The obtained inter-correlations provided support for the relationships hypothesized to exist between components of the model. Inherent in this result is support for the notion that the relational outcomes of early, primary attachment relationships play an important, ongoing role in subsequent social and affective development.

Between-group Differences

The results consistently confirmed significant ($p < .05$) and directionally anticipated differences between the two groups on all composite measures and all but three sub-scale elements. As predicted, the referred group was found to be at greater relational risk, to be less positively attached, to be less socially competent, and to report higher levels of depressive symptoms. In this study, referral status was demonstrated to be significantly related to attachment and social and affective development. In previous research, referral status had also been found to correlate with both attachment quality and affective status (e. g. Armsden et al., 1990; Carlson & Sroufe, 1995).

By examining the relationships outlined above in two distinct groups, it was possible to test hypotheses that were logically consistent with attachment theory. These hypotheses originated from the general idea that the quality of early attachment experience predictably influenced subsequent social and affective health. Between group differences provided strong support for the proposed sociogenic model of depression. As more relationally challenged in their primary environments, the referred group was reasoned to be at greater risk for developing compromised attachment and the developmental sequelae predicted from such experience. Comparing this group to a non-referred sample enabled a test of hypotheses related to the proposed model. The results supported the general hypothesis that compromised attachment cultivated social and affective dysfunction.

Attachment and Relational Risk

The literature review had indicated that children from problematic family backgrounds were at risk for developing a variety of maladaptive developmental outcomes (Allen, et al., 1996; Emde, 1989; Patterson et al., 1989; Rutter, 1985; Sroufe, 1996). While previous research in this area had concentrated mainly upon infants, young children, adolescents, and adults (Emde, 1989; Sroufe, 1983; Tronick, 1982; West et al., 1993) the current study examined related questions in an under-studied group: latency aged children (10 to 13 years of age). Such an investigation was designed to reveal developmental features associated with poor attachment as well as to test the coherence and interrelationship of the selected measures in children of this age.

Establishing the importance of primary attachment relationships to the relational and affective health of children was facilitated by the development of the AHI risk measure. By establishing an association between risk and poor attachment, poor affective outcomes could not be dismissed solely as artifacts of endogenous or reactive depressions. The risk history measure was, therefore, seen to be a useful addition to the study of the interrelationship of these variables, one that grounded other outcomes to actual historical risk features and parent evaluations of relational health.

Early social relationships had been found in the literature to have immediate and long-term effects on physical and affective health of infants and young children (Spitz & Wolf, 1946; Emde, 1989). Certainly, traumatic social experiences have long been clearly associated in clinical practice with subsequent maladjustment. By itself this finding was suggestive of the social nature of humankind and the social origins of stress. Socially based traumas such as the loss of loved ones or various kinds of abuse (e. g. physical, emotional, sexual) come readily to mind. Both loss and abuse involve disruptions of social relationships that tax the resilience of those who experience them. Positive attachment outcomes such as trust, personal security, and the capacity for intimacy have been found to positively influence subsequent relational and affective experience (Hazan & Shaver, 1994; Hill, Young, & Nord, 1994).

The two groups did not differ significantly with regard to a variety of health variables, including birth complications and separations due to hospitalizations. These features were theorized to create risk as a function of parental attachment capacity, not in and of themselves. However, it might be reasoned that the health issues of referred children would stretch the relational capacities of their parents even thinner, thereby contributing to attachment difficulties.

The referred group was found, however, to have experienced significantly higher levels of relational risk than the non-referred group. The AHI Total Risk score for this group was one standard deviation higher than that of the non-referred group. Children in the referred group had generally experienced stressed family environments and parental relationships that were less stable than those available to the non-referred group. One notable index of this instability was that of parental separation and divorce, realities found to be far more prevalent for referred children.

The significantly lower level of attachment found within the referred group was expected to be associated with increased vulnerability for the development of psychosocial problems. This lower level of attachment was believed to originate from a diminished ability of parents to provide environmental stability and reciprocal attachment behaviors in response to the attachment behaviors of their children. In contrast, non-referred children, even when exposed to disrupted family circumstances, tended to remain in care-giving situations that were relationally nearer to the care of two natural parents. For example, an examination of AHI data revealed that 19% of non-referred children resided in single parent families as compared to 56% of referred children. Fifty-seven percent of the non-referred group lived with both natural parents while this figure fell to 16% for the referred group. These findings and others (see Table 4) supported the conclusion that the referred and non-referred groups were distinctly different with regard to the degree of stability and relational risk experienced within their families of origin.

The obtained difference between groups with regard to risk was a result both theoretically expected (Bowlby, 1969, 1973) and supported by clinical and retrospective studies that had found a strong association between family dysfunction and referral status (Armsden, et al., 1990; Cicchetti, et al. 1994; Rutter, 1985). Exposure to attachment risk factors (usually chronic negative features of primary social environments) has been found to be clearly associated with poorer attachments (Bowlby, 1973; Brown & Harris, 1978; Crittenden, Partridge, & Claussen, 1991; Farran, 1996).

The finding that the non-referred group had been exposed to a greater number of re-locations was unexpected and suggested that the positive attachments and/or differing circumstances within these families were operating to mitigate the stress expected from such a risk factor. It may be that children in the more positively attached, non-referred group could rely upon their parents for the support needed to tolerate the stress of relocation. Also, this unexpected result may have reflected a developmentally based reliance on parents that lessened the impact of moving compared to what it would be later in the adolescent years when peer relationships were predominant.

In this study, attachment risk was found to be significantly and positively associated with psychosocial vulnerability. Poor attachment was suggested to set the stage for the development of psychosocial vulnerability via compromising relational and cognitive features important to the successful engagement and interpretation of social experience. The findings of this study supported the hypothesis that poor attachment would be associated with significant levels of relational risk.

Attachments to Parents and Peers

The groups differed with regard to strength of attachment to both parents and to peers. The referred group's score was nearly a standard deviation lower than the non-referred group on the IPPA Total attachment measure. While a significant difference between the groups was found on this total IPPA measure, a finer, sub-scale analysis revealed that most of this was attributable to differences in attachment to fathers and, to a lesser extent, attachment to mothers. As a group, non-referred children were found to be more attached to their fathers, reporting significantly higher levels of trust, better communication, and a lower sense of alienation from them than did referred group children. This finding likely reflected differences in the familial histories of the two groups, absent fathers or stepfathers being more common in the histories of referred children. This result may also have been in part attributable to a generally lower capacity for attachment in the fathers and father figures of referred children.

As mentioned above, referred children were found to have experienced more parental separation and divorce than non-referred children have. This often meant permanent or short-term loss of fathers or father figures from the family unit, the experience of multiple father figures, as well as the probable experience of chronic tension and discord between parents. All of these features may contribute to confusion, insecurity, mistrust, tension, and sadness in primary attachment relationships. Father absence had also been found in the literature to be associated with economic hardship and increased maternal stress (Biller, 1982), both features that stress family relationships by limiting options and compromising the physical and emotional availability of attachment figures. Psychologically, both boys and girls have been found to respond negatively to father absence, boys tending to externalize and girls to internalize and exhibit classic depressive symptoms during adolescence (Biller, 1982; Lamb, 1986).

Non-referred children were found to be generally more positively and widely attached (to two or more of mother, father, or peers) than referred children. Breadth of attachment (IPPA Total score) was significantly associated with higher levels of social competence and fewer depressive symptoms, findings that echoed the literature with regard to the importance of positive attachment to resiliency and affective health (Roberts, Gotlib, & Kassel, 1996; Rosenstein & Horowitz, 1996; Rutter, 1987).

Unexpectedly, the IPPA Mother scale was not found to significantly differentiate the groups. Only the Mother Trust sub scale reached significance ($p < .05$). The referred group reported a higher than expected level of attachment to mother, due largely to lower than expected reports of alienation from mothers in this group. This unanticipated finding could possibly have a developmental basis. Attachment to mother may be of such emotional importance to latency aged children that they find it too threatening to admit feeling emotionally estranged from mothers, not yet having developed an investment in emotionally supportive peer relationships. The internal working models of this age group may not yet have developed to function autonomously outside of primary parent-child relationships. This explanation is supported by the view of Hartup (1989) who maintained that sources of support for adjustment vary as a function of development.

The move into adolescence, with the advent of formal thought and a concurrent drive for identity and autonomy, enables the critical evaluation of relationships with parents and the outreach and transfer of focus to peer relationships. Prior to these developmental achievements, children in the age group studied may be largely relying upon primary attachment figures (especially their mothers) to meet attachment needs, irrespective of the actual attachment qualities offered by mothers. These children may find themselves in an "its mother or nothing" situation that placed them in a difficult emotional bind. To admit feeling alienated would perhaps be too psychologically threatening. This would especially be the case for children who had not yet extended their attachment relationships to peers. This explanation would account for why expected differences between groups on the IPPA-Mother scale, although evident, did not reach significance. The inherent need for an attachment figure would likely be amplified in referred children due to higher levels of anxiety generated by the lower quality of their attachment relationships. This dynamic would provide the basis for the ambivalence that lies behind the anxiety and avoidance that is characteristic of insecure categories of attachment.

Another possible explanation for non-significant attachment differences between groups may be that the IPPA itself was not designed to differentiate classifications of attachment (e. g. Secure from Ambivalent). The reported attachments of the referred group may have actually been significantly less secure due to the emotional bind outlined above but not discriminated as such by the self-report format of the IPPA. This shortcoming would have made the groups more similar numerically while masking actual qualitative differences in attachment. There were also other limitations evident with the IPPA. Although the IPPA norms included the age group studied, the norm group was largely composed of older adolescents. Therefore the mean age of the study's participants may have represented a younger developmental group, one still mostly reliant upon parents for validation, nurturing, and general attachment support. Also, within the IPPA norm group, grade 7 students had made the transition to high school, a fact that likely accentuated the importance of peers for them, resulting in higher peer attachment scores for the norm group. Observations of actual parent-child interactions upon separation and reunion would likely have more accurately differentiated children with regard to attachment quality. The addition of a specific anxiety measure may also have helped to differentiate the groups with regard to actual attachment quality.

It had been anticipated that attachment to parents would correlate strongly with attachment to peers and that the non-referred group would report generally stronger attachment to peers than the referred group. Unexpectedly, the two groups did not differ significantly on this measure, both reporting low levels of peer attachment. This result may once again reflect a developmental reliance upon parents characteristic of latency aged children. After high school entry, children who had experienced less relational risk and more positive attachments to parents would be expected to be more successful at forming positive peer attachments. In the pre-adolescent years, the relational capacities of children are not taxed to the degree that they will be later during adolescence. While a positive relationship between parent and peer attachments has been clearly demonstrated in older adolescents (e. g. Armsden et al., 1990; Elicker, Englund, & Sroufe, 1992), pre-adolescence may be a period of intense reference to parent-child relationships. During the pre-adolescent period, features of working models derived from primary attachments to parents may be consolidated in advance of exposure to the relational challenges posed by the adolescent years.

Attachment and Social Competence

This study was undertaken to investigate the theoretical idea that children with poor attachments would demonstrate greater risk for developing affective dysfunction due to the presence of depression generating, internalized features that characterize their internal working models. The social competence measure was hypothesized to be an attachment outcome that reflected qualities of the internal working model, features salient to affective health due to their influence upon the initiation and interpretation of social experience. The CBCL Social Competence scale score was regarded in this study as a measurable indication of relational qualities composing the internal working models.

Puig-Antich et al., (1985) had observed that social skill deficits remained in children following the removal of other symptoms of depression. The researcher had hypothesized that low social competence was not an outcome of depression as much as it was a behavioral indicator of the operation of internal, depression-generating features fostered by poor attachment experiences. Subsequent research had led to questions about how attachment operated to influence social and affective development. Baldwin (1992) and Main et al. (1985) had suggested that cognitive characteristics and internal representations of self and others operated to influence the quality and interpretation of social experience. Following from Main et al. (1985), Kaplan (1987) had demonstrated the continuity and formative influence of internal working models by documenting that infant attachment was transformed into corresponding mental representations in middle and later childhood. Later studies and clinical work also confirmed the continuity and influence of the working model in older populations (e. g. Cicchetti et al., 1994; West & Keller, 1994). These internalized mental representations and cognitive features lend themselves to assessment. The correlational and predictive analyses undertaken by this study was designed to assess some of these attachment-related features. Cicchetti et al., (1994) summarized the influence of these internal relational features in the following way: "...children's developmental histories and their expectations of attachment figures and self-representations that arise from those histories, bring about styles of engaging the environment and relating socially that encourage perpetuating feedback from the environment" (p. 5).

Primary attachment experiences do clearly operate to influence affective experience (Baldwin, 1992; Main et al. 1985; Kaplan, 1987; Kobak & Sceery, 1988; Sroufe, 1990). Research findings have suggested that features of the internal working model provide a framework for both the initiation and interpretation of social experience. Further, individual internal working models tend to be consistent across time because of what Cicchetti et al. term "perpetuating feedback" that confirms conclusions drawn about others, one's self-esteem, personal competence, feelings of personal security, attributions, and expectancies.

Attachment and Affective Health

Validating and security promoting attachment relationships have been found to foster resilient features that decrease vulnerability to stress, thereby preserving affective health (Aro, 1994; Rutter, 1985, 1987). Conversely, non-validating attachments are believed to promote the development of poor affective health by fostering cognitive and relational features that generate and perpetuate affective stress and vulnerability. Essentially, when basic, inherent relational needs have not been met through primary attachment relationships, a consistent outcome was hypothesized to be a dysphoric response that is both initiated and sustained by internalized cognitive features.

As in other studies (Armsden et al., 1990; Carlson & Sroufe, 1995; Cichetti et al., 1994) this present study found clear evidence of an influence between attachment quality and depressive symptoms in the children studied. The referred group was found to be dramatically less attached to fathers and somewhat less attached to mothers. This group also reported higher levels of depressive symptoms than the non-referred group. It was clear from the results of this study that compromised attachment, especially to fathers, was associated with poor affective health. It is likely, however, that compromised attachment to fathers was associated with other stressful circumstances such as father absence, increased maternal stress, and exposure to multiple father figures. The data suggested that, even when unable to trust mothers, referred children found it difficult to admit to feelings of alienation from mother. It is reasonable to assume that such an emotional bind would be associated with stress and relational vulnerability. This bind could provide the basis for stressful attachment adaptations of the anxious, ambivalent, and disorganized types, all identified as precursors of socio-emotional dysfunction.

Social Competence and Affective Health

Social competence was hypothesized to be an important variable, an outcome directly related to attachment quality and important in the genesis of emotional resilience. Theoretically, this measure was regarded as an outcome that reflected the quality and strength of the individual's attachment generated relational capacity. Previous research had suggested that poor attachment outcomes generated cognitive and relational vulnerabilities. The social competence measure significantly differentiated the two groups and, together with attachment strength, accounted for thirty-eight percent of the variance in self-reported depressive symptoms. This finding was not unexpected due to the relationships of these variables established by the literature review. However, it had been expected that the social competence measure would account for a larger proportion of this variance. Failure to do so may have been due to the inability of the social competence measure to directly assess cognitive features known to be important to affective experience (Baldwin, 1992). A direct assessment of cognitive features such as attributions and expectancies would have refined the competence measure and, by doing so, captured more of the variance around depressive symptoms.

Poor attachment reduces the capacity to engage in supportive, validating social relationships. As well, poorly attached individuals must contend with depression-generating expectancies and attributions. As predicted by the proposed sociogenic model of depression, lower levels of social competence were found to be significantly associated with both lower levels of attachment and higher levels of depressive symptoms.

The results of this analysis also suggested that the social competencies of children would be more evident and more easily assessed during adolescence, when social abilities and readiness are put to a supreme test. If assessed during adolescence, therefore, attachment quality would possibly account for a greater proportion of the variance in the social competence measure than that found by this study. Therefore, the assessment of these relationships in latency aged children may, for developmental reasons, have been somewhat muted in comparison to what may be the case for other age groups.

Developmental Influences

A close look at attachment information gleaned from participant responses to the IPPA and AHI suggested a number of interesting group differences and developmental effects. For example, referred children reported significantly less attachment to their fathers than did children in the non-referred group. One possible explanation for this may be that the referred group had experienced more father absence, more parental strife, and the presence of multiple father figures. Besides the documented developmental confusion and stress presented by these conditions (Biller, 1982; Lamb, 1986), problematic attachment to fathers may also reflect the day to day reliance of children upon the mother-child relationship, a reliance characteristic of most children involved in the study.

Although a non-significant group difference was found for overall attachment to mothers, sub-scale analysis revealed an unexpected result. In spite of reporting comparatively poor Communication and Trust, the referred group reported a lack of Alienation from mothers. Again, this finding may provide the basis for a developmental bind faced by children when confronted by the challenge of relating to mothers who have compromised attachment abilities. The psychological consequences of admitting feelings of alienation from primary attachment figures (e.

g. anxiety, insecurity) would theoretically force children to maintain emotional proximity and reliance upon these figures even though actual, healthy attachment support was unavailable. Coping with the challenge of poor attachment support in this way may, as mentioned above, pave the way for relational difficulties and problematic attachment outcomes identified by earlier attachment researchers (e. g. Ainsworth et al., 1978; Hazan & Shaver, 1994; Main et al., 1985; West et al., 1993).

With regard to differences between self- (RCDS) and parent-reported (CBCL Internalization scale) symptoms of depression, the study found that parents generally reported higher levels of features related to depression than would be expected from the numbers and levels of depressive symptoms reported by their children. One explanation could be that parents observed depressive tendencies that were as yet dormant and untested by long-term social experience. It might be argued that, over time, overt symptoms of depression would arise following the consistent use of faulty relational features. The test of relational readiness provided by the social challenges of adolescence would be expected to generate stress proportionate to the relational resources available to individuals. Given the general stability of attachment patterns over time (Arend et al., 1979; Elicker et al., 1992) and the importance of attachment to psychological well being (Del Carmen & Huffman, 1996; Cicchetti et al., 1994), it is reasonable to assume that depressogenic features would continue to operate across time with predictable effects upon psychological resilience and health. It is possible, therefore, that parental evaluations of the affective and relational health of children in the age group studied (as assessed by the CBCL) may have predictive value with regard to subsequent affective health in adolescence. This idea could be tested by longitudinal investigations.

Another finding that may have a developmental basis concerns attachment to peers. It had been hypothesized that this would be the case for referred children but that non-referred children would express average range attachment to peers. Unexpectedly, both groups reported a lower than expected level of attachment to peers on the IPPA. This result may be tied to the developmental realities of the latency period. The focus and dependence upon peers that characterizes adolescence has not yet emerged. This finding suggested that children in the age group studied remain dependent upon their parents or primary caregivers for attachment support. A transfer of focus out to peers seems to coincide with developmental changes associated with adolescence, namely increased autonomy, and identity formation.

The relational and cognitive skills fostered by primary attachment relationships might be consolidated in the latency period in advance of the "Sturm und Drang" of adolescence. Indeed, much of the stress of adolescence may relate directly to how well children are prepared by primary attachments to meet subsequent interpersonal challenges. The continuity of attachment quality across time (Elicker et al., 1992) suggests that primary attachment outcomes are generally applied in subsequent relationships. According to the finding of non-attachment to peers, testing for continuity between parent and peer attachments would not be fruitful with latency aged children. Primary parent-child attachment relationships appear to be pre-eminent for children in this age group and are, therefore likely to provide a more valid picture and predictor of relational and psychological health. This suggests that directly assessing peer attachment via self-report in latency aged children may be of scant value.

Conclusions

The results of this study provided support for most of the hypotheses generated concerning group differences, the inter-relationship of variables, and the influence of attachment upon social and affective well being. Results were generally consistent with findings of previous research and supported the general hypothesis that attachment quality exerted an important influence vital to the understanding of the development of emotional resilience and the prevention and treatment of psychosocial and relational dysfunction.

A number of conclusive statements were supported by the findings. First, the relationship of attachment to psychological resilience was established. Resilience was connected to the social and cognitive potentials fostered by positive attachment relationships (Brabey et al., 1994; Demos, 1989; Werner, 1984). These relational and cognitive features had been respectively identified by resiliency and social-cognitive research (e. g. Demos, 1989; Baldwin, 1992). A review of the literature provided support for the conclusion that positive attachment was strongly associated with both affective and social health (e. g. Cummings & Cicchetti, 1990; Collins, 1996; Elicker et al., 1992). The results of this study also mirrored these results, as poorly attached children were found to present with a distinctive pattern of social and cognitive features. Many of these same features were associated with high levels of depressive symptoms.

Also substantiated by the literature review was that human nature had a fundamentally social aspect that required cultivation by timely, developmental social support. Failure to provide stage salient support engendered social and affective deficits associated with compromised emotional resilience. The social histories of the referred group were found to include significantly more attachment related risk factors, many of which represented a lack of salient support. For example, family environments that were unstable in terms of parental affective health, parental relationships, and ability to validate children were more typical in the histories of children rated by parents to have low social competence and higher levels of depression.

It seems plain from the results of the study that the inherent social needs of humans (evident throughout the life span) require cultivation if affective resilience and associated emotional health are to develop. Resilience and its component features such as high self-esteem were found to clearly associate with positive attachment. These features are united by the fact that they are all social products, the outcomes of social experience and training received from within primary attachment relationships. Establishing evidence of the existence of these influences has provided substance to the argument that the increased incidence of depressive disorders may involve the emergence of counter-developmental social conditions. In doing so, a basis from which to evaluate and criticize social environments has been further established.

One potential benefit of understanding the contribution of attachment to emotional well being is that parents, caregivers, teachers, therapists, communities, government agencies, etc. can be informed about what needs to be provided by environments and effective interventions. Problematic areas such as delinquent and oppositional behavior (Patterson et al., 1989), attention disorders, as well as personality disorders (West & Keller, 1994) and problematic adult relationships (Hazan & Shaver, 1992) may be understood as adaptations to faulty primary attachment relationships. Framing these disorders in attachment terms provides understanding and suggests that a relational approach be applied to interventions at a variety of social levels.

A relational approach that meets primary emotional needs, coupled with efforts to alter negative cognitive features via social-cognitive therapies, are logical approaches to the prevention and treatment of the documented sequelae of poor attachment. Treatment would involve challenging dysfunctional aspects of internal working models such as low self-esteem and lack of personal security by offering new relational experiences and by altering self-limiting expectancies and attributions via cognitive interventions.

To regard the affective problems of children as individual aberrations, to continue to treat childhood depression as an ipsative phenomenon, is to fail to incorporate what we now know about the role of social factors and inherent human social needs in the genesis of this condition. Affective health and resilience were found to be clearly related to internalized relational features cultivated by supportive primary attachment relationships. Through its influence upon personal and relational features, attachment makes a major contribution to emotional resilience and affective health.

Results of the study strongly suggested that a characteristic pattern of social and affective deficits emerged as a response to contending with compromised primary attachment relationships. These findings echo those of previous research and underscore the importance of positive attachment to the development of affective and social potentials (Del Carmen & Huffman, 1996; Elicker et al., 1992). Compromised attachments seem to place children at risk by engendering personal and relational deficits that operate to produce poor affective resilience and consequent vulnerability. Fundamental social needs cannot be satisfied when thwarted by a relational system hampered by features such as low self-esteem, distrust, and negative social expectancies. This study suggested that poor social competency provides the basis for affective vulnerability. Social deficits, therefore, seem to originate from primary attachment experiences and are not solely secondary outcomes of depression, as interpreted by Puig-Antich et al. (1985).

The findings were also consistent with the view that primary attachment relationships provide children with initial social experiences that engender the personal and cognitive features of individual internal working models. The features of the internal working model are self-perpetuating because they tend to evoke expected responses from others and because associated cognitive features operate to consistently bias the interpretation of social experience. Without intervention, relational features generated by parent-child attachment relationships tend to be maintained. The primacy of parent-child attachments was also indicated for latency aged children and suggested that children in this developmental period were bound to reference themselves to these relationships with parents until the onset of adolescence.

Although specific features such as SES or child temperament may stress parents, in this study they were regarded as features mediated by the relational or attachment capacities of parents. Also, careful observation of parent reports suggested that much of the economic hardship noted in families involved in the study was associated with parental separations and consequences such as divided income and need for social assistance benefits. One interpretation of lower family SES, then, was that it was, in part, the consequence of parental relational instability.

Results of the study also revealed certain features of attachment associated with the development of latency-aged children. Among these were what appeared to be a lack of transfer of attachment to peer relationships and a tenacious dependence upon attachments to mothers. This latter observation is of particular interest given the social and political climate of this day. Dependence upon mothers for nurture and comfort likely has a strong biological basis. From the ethological perspective, the long-term and early proximity of child and mother that stemmed from pregnancy, breast-feeding and the need for daily care, has establishes mother as the primary source of security for most children. Fathers still typically work outside of the home, have fewer day to day care giving responsibilities, and tend to be non-custodial parents when separated or divorced. The resulting reliance upon mothers may be amplified in times of stress and this may be particularly true for children in the latency period.

It may be that children in the latency period must rely on parents for attachment support, as they may not be typically ready to extend attachment relationships to include peers. This would explain why many poorly attached children in the referred group reported low feelings of alienation from mother while at the same time reporting poor communication and trust. This may be the result of poor attachment to mother in a period when, for developmental reasons, mother is the primary attachment figure. The emotional bind created by such a predicament may lie behind the social ambivalence noted in anxious, avoidant, and disorganized attachments. Such ambivalent experience within primary attachments could also help to explain the emergence of borderline personality adjustments in later life.

Implications

The findings of this study will now be discussed as they relate to the prevention and treatment of the symptoms of depression. Recommendations for further research will follow these discussions.

Prevention

Understanding the dependence of inherent relational capacities upon complimentary features of the social environment has important implications for preventive and therapeutic efforts. Viewed from this perspective, the origins of emotional stress may be understood in terms of rapid social and technological changes that have adversely altered important developmental aspects of the environment. If vulnerability to human depression is partially attributable to an affective response to unmet, inherent social needs, then remedial and preventive efforts should logically work to meet these needs with supportive social interventions. The various environments of childhood may be evaluated according to objective criteria known to be important to the development and maintenance of healthy social and emotional potentials. The prevention and modification of social conditions that generate depression and anxiety-based problems will be more likely once the inherent, social nature and the social dependence of children are acknowledged. To accomplish this, impediments to cultivating healthier relational environments must be identified and removed. This will not be easy due to the fact that it will involve fundamental changes to the social status quo, a goal guaranteed to meet with resistance (Albee, 1986; Prilleltensky, 1989).

The social dependency of children and formative importance of various social environments upon relational and affective potentials should quite naturally direct preventive efforts toward the evaluation of the developmental saliency of these environments. While attachment research has served to vastly increase our knowledge of the requirements for healthy emotional development, little has been done to apply this knowledge to primary, or even secondary prevention efforts (Goldstone, 1990). In fact, with a few notable exceptions (e. g. Greenspan, 1992) what has often been cited as prevention has amounted to little more than interventions to deal with the symptoms of existing emotional dysfunction, not the factors contributing to its origin (Albee, 1986; Goldstone, 1990).

Given the importance of social support to the cultivation of resilience, it is strongly recommended that efforts be made to evaluate the developmental environments of childhood (i. e. families, schools, communities, neighborhoods, media) with regard to how well they cultivate resilience. Armed with the knowledge of what important supports were lacking would enable those working for children to enhance the developmental richness of a variety of settings. Also, assessing children for known features of resilience like trust of others, self-confidence, emotional security, competence, hope for the future, positive expectancies, and general relational skills would be an important first step in this process. Relational deficits assessed in children should, theoretically, be associated with corresponding attachment features in their social histories.

This approach to the assessment of children is much in keeping with recent research (Runyan, Hunter, Socolar et al., 1998) into what has been termed "social capital". The assessment of social capital is in essence an evaluation of the status of both the child and their environments. Social capital is defined in terms of resources like supportive social networks, trust of others, and expectations that are available for the child to draw upon in times of stress. As will be remembered from discussions above, these features also characterize positive attachment outcomes.

Examples of general primary interventions would be (a) providing school programs and teacher education about the behaviors that foster student self-esteem and sense of competence, (b) designing child care environments and training personnel to provide children with attachment support, (c) providing public health campaigns that target the ignorance surrounding the importance of relational health to quality of life and affective well being, and (d) efforts to build the self-esteem and relational skills of existing and prospective parents.

Early and vigorous interventions targeting specific counter-developmental social conditions and relational deficits within children would reduce the number of stressors children had to contend with while bolstering resilience. These efforts could be enhanced by initiatives to screen infants and children and their environments for attachment risk features. This would likely pay dividends to individuals and society given the documented risk to poorly attached individuals of developing a variety of relationally based psychiatric disorders, social problems, and generally poor emotional resilience. These outcomes all generate enormous personal and social costs.

The early identification and treatment of children made vulnerable by poor attachments and other developmental risk factors (e. g. Greenspan, 1992) would have a positive impact upon the emotional and social health of the general population. On the practical side, this approach could potentially reduce costs associated with the social and forensic outcomes of human relational dysfunction. The potential benefit to individuals and relationships would be immeasurable. Emotional resilience appears to be, therefore, a valid and valuable developmental goal to target for both prevention and remedial efforts. However, to ensure success, will be of paramount importance that the developmentally toxic social features impeding the development of healthy attachments and emotional resilience be identified and modified.

In summary, it seems plain that the consequences of compromised attachment do contribute to depressive disorders in children. It follows, then, that the general enhancement of social environments with supports that promote the development of resilient personal qualities and social skills should prevent the development of depressive symptoms and disorders. Cultivating outcomes such as basic trust, security, healthy self-reliance, a sense of personal validation, positive expectancies, and sense of competence would do much to provide children with the foundation for successful relationships and emotional resilience. Schools, homes, child-serving agencies, and communities could all be objectively evaluated with regard to how they support and cultivate the inherent relational capacities and positive attachment outcomes that are associated with social health, resilience, and affective well being.

Treatment

The experience of children suffering symptoms of depression becomes understandable when viewed from the perspective provided by attachment theory and research. Put simply, poor attachment truncates relational and affective potentials, fostering vulnerability by compromising emotional resilience. Understanding these relationships has the potential to enable treatment to move beyond the. removal of symptoms to the remediation of root causes. By evaluating the affective presentation of children in attachment terms, treatment goals and interventions become readily apparent. When assessed, the attachment history and relational characteristics originating from that history, offer important therapeutic information. Dysfunctional cognitive and relational features such as negative attributions and expectancies, poor self-esteem, and low self-confidence can be assessed. As mentioned above, these features lend themselves to intervention via a variety of cognitive therapy techniques (Whisman & McGarvey, 1995).

The established importance of attachment relationships to the cultivation of inherent human relational capacities has important implications for treatment efforts. It follows that problems with a social origin will, at least in part, have a social solution. Attachment quality is a social outcome, the product of primary social relationships. Research findings strongly suggest that personal qualities and attributions result from conclusions drawn about the self and the social world, conclusions that manifest themselves in a relational stance and a pattern of interpretive biases. Providing children with the opportunity to acquire trusting, secure relationship experiences, while actively challenging (or dis-confirming) negative evaluations of self and others was suggested to be a useful therapeutic approach. For example, emerging from early childhood with a reluctance to trust others presents trust as a therapeutic issue. In this case, the establishment of trusting social relationships is indicated as a treatment goal, one that would enable the modification of a dysfunctional feature of the individual's internal working model. Similarly, identifying cognitive features of a person's presentation (such as negative attributions, low self-appraisals and negative expectancies) and understanding these as outcomes of relational histories, would enable therapists to frame client issues in personally relevant terms. Once identified, specific cognitive and social interventions could be devised to directly address dysfunctional relational features.

Contextualizing the presentation of individuals in attachment terms offers the advantage of making them understandable. Emotional distress would be more easily regarded as an adaptation to a history of harsh, non-supportive social experiences, or to a developmentally toxic environment. This approach would offer the person an opportunity to view their personal, relational challenges (e. g. poor trust, ambivalence about relationships) as natural human responses to adverse social experience. Personal distress would be understood as a desire for and response to the thwarting of healthy relationships and social affirmation.

A relational approach on the part of therapists is also suggested for those working with children struggling with faulty internal working models. Again, as many psychopathologies originate from stress and psychological adaptations to aberrant primary social experiences, programs targeting the replacement of maladaptive features are suggested as a general goal for therapeutic efforts. Clients frequently report that it is not what the therapist *did* (technique) as much as it was *whom they were* (relationship) that made the difference. The importance of relationship in the change process may be especially evident for individuals with challenges that stem from relational features that have emerged from problematic primary attachment relationships.

Delimitations of the Study

Certain delimiting factors restricted obtaining a clear picture of the effects of poor attachment upon social and affective health. To start with, factors inherent in the research design delimited the study. For example, a lack of strict control over the independent variable (Attachment status) precluded making causal assertions about the relationship between attachment variables, outcomes and social and affective health. This limitation resulted from the need to gather ex post facto data. Other limitations imposed by this design include being unable to control spurious variables, the post hoc fallacy, and the direction of causality problem.

Also, in collecting this data, the tendency for participants to forget, defend or embellish emotionally laden material may have occurred, especially in the historical accounts of referred children and their parents. This may have affected the validity of data to a certain degree. Also, the sensitive area covered by the research question could possibly have generated selection bias within both samples. For these reasons, an under-reporting of compromised attachment history data may have occurred and, if present, may have served to reduce between-group differences and the inter-correlation of measures to some degree.

The findings of the study must also be interpreted with some degree of caution because variables such as SES were not strictly controlled. In the case of SES, referred families were generally found to be of a lower SES than were non-referred children. However, the between-group difference in SES was, to some extent, attributable to the increased incidence of parental divorce, separation, and single-parent status in the referred group. Therefore, lower SES may have been, at least in part, relational in origin. This fact aside, lower SES has been shown to stress families and this may have contributed to some of the between group differences and correlations.

A final delimiting factor relates to sample size. Seventy-five children participated in the study and of these, sixty-nine were associated with complete data sets (non-referred N= 37, referred N= 32). Although of adequate size for statistical analysis, a larger total sample would have increased the validity and ability to generalize results.

Suggestions for Future Research

This study and other research findings have strongly suggested that attachment status is important to social and affective well being. Children who are not positively attached have been found to be over-represented in clinics and to require the support of specialized personnel (e. g. counselors, psychologists, childcare workers, social workers) to deal with a variety of behavioral and emotional problems. Further studies are required to investigate the vulnerabilities associated with poor attachments. To date, outcomes such as anti-social behavior, attention problems, oppositional defiant and conduct disorders, poor school achievement, and mood disorders have all been found to be associated with compromised attachments. Examining the origins of a wide range of pathological disorders from an attachment perspective could prove fruitful and further establish the importance of supportive attachment relationships to social and psychological well being.

The value of more longitudinal investigations of the interrelationships of attachment, competence, and affective capacities was also suggested. Knowing more about the sequelae of compromised attachment throughout the life span would be of obvious value, especially given the indicated consistency of attachment quality within individuals over time (e. g. Cicchetti et al., 1994; Main et al., 1985; Sroufe & Fleeson, 1988).

An example of a testable question lending itself to longitudinal investigation is: Would parent reports of child internalization tendencies in the elementary school years more accurately estimate actual levels of depression experienced by children after high school entry than self-reported depressive symptoms by children in this age group? Testing this question would provide developmental information concerning how depression is expressed in childhood while enhancing the ability to assess risk for the onset of depression later in adolescence. For example, assessing the relational risk (attachment status) of pre-adolescents could provide a screening method that would indicate the need for early cognitive and relational interventions. Such knowledge could help prepare children to better handle the stresses associated with adolescence and high school entry. Longitudinal studies employing control groups could assess the prophylactic value of the relational readiness fostered by positive attachment relationships.

The findings of this study also underscored the importance of further investigating the influence of Macrosocial factors upon the emotional well being of children. The ethological basis of attachment theory allows the formulation of questions related to how well society cultivates the inherent relational potentials of children. For example, the observed rise in the incidence of affective disorders (Angold, 1988; Klerman, 1988; Lavori, et al. 1987) and indications of social instability such as an increased divorce rate (Wallerstein, 1989) are logically consistent with the perspective on development offered by attachment theory. Evaluating various social environments for the potential to cultivate secure, positive attachments would involve the identification and criticism of counter-developmental social features while enabling the provision of sensitive supports.

Clinical experience also attests to the importance of positive attachment relationships to emotional well being. The histories of children presenting to mental health clinics are frequently characterized by stressful relational experiences that include poor attachments, non-supportive home environments, foster home placements, as well as social losses and displacements. Developing questionnaires designed to gather attachment focused, social history information would help to contextualize the clinical presentation of children. Such an approach would identify personal challenges that would of themselves suggest specific environmental interventions and cognitive treatment solutions.

As mentioned above, failure to make more rapid progress in acknowledging the role of social factors in the genesis of psychopathology has been linked to psychology's relationship to the social status quo (Albee, 1986; Prilleltensky, 1989; Sarason, 1981). Vestiges of the outdated view of childhood depression that originate from this relationship still remain in the treatment community. Acknowledging that the social status quo influences research questions as well as the interpretation and application of results is crucial to the meaningful investigation of the origins of human psychopathology. By adopting an ethological approach, the biasing influence of culture upon developmental research could be moderated. This would enable the formulation of research questions and an interpretation of results based more upon an understanding of organismic requirements, not upon social or cultural needs. This change of focus would legitimize the identification of stress-producing, counter-developmental social conditions while providing a developmental rationale for modifying them. Theoretically, this approach would do much to reduce the incidence of depression throughout the life span by matching inherent human needs with social environments that actively cultivated and provisioned them.

While the developmental contribution of positive attachment to psychological health has been demonstrated by this and other studies, little has been done to date to address the Macrosocial trends that contribute to compromised attachments (Albee, 1986; Fogel et al., 1986; Keniston, 1977; Stevenson-Hinde, 1994). Further research is required to underscore the importance of social and Macrosocial features to the development of both resilience and psychopathology. The social status quo will likely resist this effort by accepting a less organismic and systemic, more ipsative view of the origins and treatment of depression. Failure to critically evaluate macro-social influences upon human development may partly explain why counter-developmental social conditions remain. The ipsative focus of most psychological interventions provides stark testimony of a lack of interest in macro-social influences upon emotional health, leaving them unidentified and, therefore, unmodified.

Another potentially fruitful area of research would involve investigating the question of whether some of what has been claimed as a genetic influence upon affective health is in fact social in origin. For example, questions like "How much of the reported concordance for depression found for mono-zygotic twins separated by adoption at birth is due to the fact that both individuals are dealing with the social fact that they were relinquished at birth?" It is reasonable to assume that the social fact of adoption and/or adoptive parent responses to the adopted child, have affective consequences that may have previously been attributed solely to genetic influence. Also, the frequently cited concordance for depression between first-degree relatives and children has typically been attributed to genetic influence. However, the genesis of depression may, at least in part, involve a social transmission related to parental social characteristics and relationship capacities (Tronick, 1982; Teti, Gelfand, Messinger, & Isabella, 1995). Again, this line of investigation may have been thwarted by a status quo induced failure to investigate the role of macro-social factors in the etiology of depression.

The above argument is made stronger by research demonstrating the influence of primary attachment relationships upon resilience and vulnerability to psychopathology (Carlson & Sroufe, 1995; Cicchetti, et al., 1995; Main, 1996) and indications of an intergenerational transmission of depressive tendencies (Bretherton, 1985; Sroufe & Fleeson, 1988). Research designed to more sensitively partial out the variance attributable to sociogenic features could be of value. Proof of social transmission would allow consideration of a more hopeful, less deterministic prognosis while offering an alternative or adjunct to the pharmacological treatment indicated by a primarily genetic explanation of human depression.

Clearly evident from the literature review and results of this study was that children who have had to contend with compromised primary attachment relationships are less resilient emotionally (Rutter, 1987; Werner, 1984). This lowered resilience is believed to originate from the operation of compromised internal working models. Poorly attached children are over-represented in clinical populations, presenting more often to mental health facilities and school counselors with a variety of behavioral and academic problems related to socio-emotional deficits. The literature reports an increasing number of children presenting with such difficulties, a finding that coincides with increases in other indicators of declining social cohesion such as a rising divorce rate (Wallerstein, 1989) and increased family and parental stress. From the attachment perspective, such increases in pathology may be explained in terms of the stress induced by counter-developmental social changes that have made it difficult for an increasing number of children to receive quality attachment support. Further research is required to investigate the effects of social change upon human emotional health. This line of research promises to be a rich source of information about what humans require for optimal emotional development.

This study demonstrated that poor attachment was associated with identifiable social risk features and vulnerability for depression. Research that further investigates both the prophylactic value of secure attachments and the sequelae of poor attachments is required. Developing criteria with which to evaluate social environments for qualities that foster relational confidence and emotional security would be a valuable contribution, as would the application of what is known about the importance of these environments to the cultivation of resilient emotional characteristics. Continued research in this area promises to provide further confirmation of the importance of successful attachment to social and emotional functioning throughout the life span. Such efforts should yield information useful in the establishment of prevention and treatment programs. It is anticipated that the creative application of information derived from such research would do much to stem the rising incidence of affective disorders noted above.

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Appendix A

Letter of Introduction

Dear Parents,

The purpose of this letter is to invite your participation in a research study: ***Attachment and Depressive Symptoms in Childhood: A Causal-Comparative Analysis.*** I am asking your permission to involve you and your child in a study designed to gather information about how children develop emotionally.

Participating children will complete a "feelings scale" and a relationship questionnaire. Parents will be asked to complete a "behavior checklist" as well as a Questionnaire requesting information on social factors thought to be important to healthy emotional development.

This study is expected to provide important information that will help further our understanding of how children develop depressive symptoms. Depression is a condition that can lower school performance and contribute to relationship problems and general unhappiness.

It is important to note that all shared information will be kept strictly confidential. All of the information collected for individual children will be identified by a study number only to ensure that it stays together and remains confidential. Also important to know is that the adult questionnaire and behavior checklist will require about 40 minutes of your time to complete. The child questionnaire and the feelings scale will require about 25 minutes to complete and will be given to children at their schools or other agencies.

Thank you for your willingness to consider participating in this study. If interested, please complete and return the attached consent form to your child's teacher or the agency serving you. Thanks again for your time!

Sincerely,

Eric C. Sundby, Ph.D. Candidate
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University of Alberta
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Local Contact Numbers: Nanaimo, B.C.
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Consent Form

I/We hereby agree to participate and give permission for my/our child (mentioned below) to participate in the study ***Attachment and Depressive Symptoms in Childhood: A Causal-Comparative Analysis.***

Child's Name: ______________________________ Birth Date: ___/___/___
yy mm dd

Home Address: ______________________________

____

Phone Numbers: Home: ____________ Work: ____________

Child's School: ______________________________ Grade: _______

Teacher: ______________________________

Parent Names: ______________________, ______________________

Parent Signature(s): ____________________, ____________________

Date: ____________________

Appendix B

ATTACHMENT HISTORY INVENTORY - PARENT FORM

File #: S - C______ **Relationship to Child of Person Providing Information:______________.**

Child's Age: _______

Child's Sex: _______ **Child's Birth Date: ___/___/___**
day-month-year

The following questions are designed to help parents and others to better understand the developmental needs of children. There are no right or wrong answers to these questions.

Please read each question carefully remembering that your responses will be held in the strictest confidence. The information that you provide will be identified with the above file number and not with your child's name.

I. General Information

1. List what you feel are your child's personal strengths?

   a. ______________________________________

   b. ______________________________________

   c. ______________________________________

   d. ______________________________________

2. What presently concerns you most about your child?

   a. ______________________________________

   b. ______________________________________

   c. ______________________________________

   d. ______________________________________

II. Health History (please check the answer that best describes your child's situation).

1. Was the pregnancy with this child planned?

   yes ___ no ___

2. Was this child born prematurely? (more than 3 weeks early?).

   yes ___ no ___

3. Were there any birth complications or early health problems?

yes___ no___

____

(If yes, please explain)

4. Does your child have any on-going health problems?

yes___ no___

____

(If yes, please describe)

5. Has your child ever been hospitalized for more than two days?

yes____ no____

If "yes" please report:

At what age(s) hospitalization(s) occurred?

____

____

How long hospitalization(s) lasted?

____

III. Family History

1. How old were this child's natural parents when s/he was born?

	mother	**father**
17 years or under	______	______
18 to 22 years	______	______
23 to 29 years	______	______
30 years and over	______	______

2. What is the present relationship of this child's natural parents?

Married___	Separated ___
Single ___	Divorced ___
Common-law ___	Widowed ___
Contact ___	No Contact ___

3. Has this child lost daily contact with a parent due to parent separation or divorce?

yes___ no ___

4. Has parental separation or divorce occurred more than once for this child?

yes___ no ___

5. If child's parents have divorced or separated, at what age(s) was the child when this occurred?

Birth-2 years ___
2-4 years ___
5-7 years ___
8-10 years ___
11-12 years___

6. If this child has lost a parent to death, at what age did this loss occur?

0-2 year ___
3-4 years ___
5-7 years ___
8-10 years ___
11-12 years ___

7. Has this child experienced any recent losses within the past 6 months (of people, places, pets, etc.)?

yes___ no ___

8. Is this child presently living with:

Both natural parents___
One natural parent ___
One natural parent and a stepparent ___
Extended family ___
Foster parents ___
Adoptive parents ___
Others? ___
(Specify)____________________________.

9. If fostered or adopted, at what age did this change occur for the child?

years ___ months___

10. If a foster child, how many foster placements has this child experienced?

Does not apply ___
one ___ two ___
three ___ four or more___

11. How many brothers and sisters does this child have?

None ___
One ___
Two ___
Three ___
Four ___
Over Five ___

12. Is this child presently living with all of their natural brothers and sisters?

yes ___ no ___

13. Has this child spent any extended period of time (more than three days) living away from their natural parents because of: ?

Parent illness ___
Child's behavior ___
Parent work schedule ___
Fights with siblings ___
Conflict with parent ___
Parent conflict ___
Child illness ___
Other (Describe) ___

14. Has either of this child's parents or long-term caregivers received help for a mood depression?

yes___ no___

15. Since birth, how often has this child moved to a different home with his or her family?

Never has moved ___
3-4 moves ___
1-2 moves ___
5 or more moves ___

16. Were these moves:
Within the same city? yes___ no___

From one city to another? yes___ no___

17. In their natural or long-term family, is this child:

An only child? ___
Second born? ___
Youngest? ___
A first born? ___
A middle born? ___
A twin? ___

Please proceed on to the next page to answer further questions about your child.

The final section of this questionnaire asks you to rate your child on each of the statements presented. There are no right or wrong answers. The important thing is to answer as accurately as you can. Your first thought about a statement is usually closest to your true feeling about it.

Please read each statement carefully and then circle the letter that best matches how you feel about it. The letters and their meanings are as follows:

If the statement **NEVER** (not at all) matches, circle **N.**
If the statement **RARELY** (hardly ever) matches, circle **R**
If the statement **SOMETIMES** (half the time) matches, circle **S**
If the statement **OFTEN** (more than not) matches, circle **O**
If the statement **ALWAYS** (every time) matches, circle **A**

For example, the statement: "I eat ice-cream after lunch" might be answered in the following way:

N **(R)** S O A

This response indicates that the person **"Rarely"** (hardly ever) eats ice cream after lunch.

Now, you try one!: "I have lots of energy?"

N R S O A

Your response says that you feel you__________________ have lots of energy.

Please answer the following:

	Never	Rarely	Sometimes	Often	Always
1. I find my child easy to get along with.	N	R	S	O	A
2. My child seeks me out when they have a worry or concern.	N	R	S	O	A
3. I can comfort my child when they are worried or anxious.	N	R	S	O	A

		Never	Rarely	Sometimes	Often	Always
4.	I am excited to see my child after we have been apart.	N	R	S	O	A
5.	I tell my child "I love you".	N	R	S	O	A
6.	I am **un**comfortable showing affection to my child.	N	R	S	O	A
7.	I tell my child that they do things well.	N	R	S	O	A
8.	My child and I do things together that we both enjoy.	N	R	S	O	A
9.	My child's behaviour falls **below** my expectations.	N	R	S	O	A
10.	When they are hurt or troubled my child wants to be near me.	N	R	S	O	A
11.	My child makes friends easily.	N	R	S	O	A
12.	My child is **un**cooperative.	N	R	S	O	A
13.	My child is independent.	N	R	S	O	A

Please comment on the following with your child in mind:

	My child:	Never	Rarely	Sometimes	Often	Always
14.	talks about how they feel.	N	R	S	O	A
15.	fights with other children.	N	R	S	O	A
16.	has regular contact with family members or friends outside their immediate family.	N	R	S	O	A
17.	avoids trying new things.	N	R	S	O	A

My Child:

		Never	Rarely	Sometimes	Often	Always
18.	is relaxed at home.	N	R	S	O	A
19.	belongs to organized groups such as a sports team or guides/scouts, etc.	N	R	S	O	A
20.	says they love me.	N	R	S	O	A
21.	is slow to get over disappointments.	N	R	S	O	A
22.	makes efforts to contact their friends (by phone or by visits).	N	R	S	O	A
23.	likes to explore their surroundings.	N	R	S	O	A
24.	is uncomfortable in new places.	N	R	S	O	A
25.	is comfortable meeting new people.	N	R	S	O	A
26.	stays close to me when in a new situation.	N	R	S	O	A

Thank you for completing this questionnaire and for working so hard at it. Please return it in the envelope provided.

Appendix C

Inventory of Parent-Peer Attachment (Sample)

Each of the following statements asks about your feelings about your *mother* or the woman who has acted as your mother. If you have more than one person acting as your mother (e.g., a natural mother and a stepmother) answer the questions for the one you feel has most influenced you.

Please read each statement and circle the ONE number (1-5) that tells how true the statement is for you now.

The numbers for each item correspond to the following response choices:

> **1** - Almost never or never true; **2** - Not very often true; **3** - Sometimes true; **4** - Often true; and **5** - Almost always or always true.

Item #:

1.My mother respects my feelings.
2.I feel my mother does a good job as my mother.
3.I wish I had a different mother.
4. My mother accepts me as I am.
5. I like to get my mother's point of view on things I am concerned about.
6. I feel that it's no use letting my feelings show around my mother.
7. My mother can tell when I'm upset about something.
8. Talking over my problems with my mother makes me feel ashamed or foolish.
9. My mother expects too much from me.
10. I get upset easily around my mother.
11. I get upset a lot more than my mother knows about.
12. When we discuss things, my mother cares about my point of view.
13. My mother trusts my judgement.
14. My mother has her own problems, so I don't bother her with mine.
15. My mother helps me to understand myself better.
16. I tell my mother about my problems and troubles.
17. I feel angry with my mother.
18. I don't get much attention from my mother.
19. My mother helps me to talk about my difficulties.
20. My mother understands me.
21. When I am angry about something, my mother tries to be understanding.

22. I trust my mother.
23. My mother doesn't understand what I am going through these days.
24. I can count on my mother when I need to get something off my chest.
25. If my mother knows something is bothering me, she asks me about it.